

Devi, S.
10/772597

09/772599

03aug04 09:31:54 User219783 Session D2039.2

SYSTEM:OS - DIALOG OneSearch
File 65:Inside Conferences 1993-2004/Aug W1
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File 440:Current Contents Search(R) 1990-2004/Aug 03
(c) 2004 Inst for Sci Info
File 348:EUROPEAN PATENTS 1978-2004/Jul W03
(c) 2004 European Patent Office
File 357:Derwent Biotech Res. 1982-2004/Aug W1
(c) 2004 Thomson Derwent & ISI
File 113:European R&D Database 1997
(c) 1997 Reed-Elsevier(UK) Ltd All rts reserv
*File 113: This file is closed (no updates)

Set	Items	Description	- Autros (S)
Set	Items	Description	
S1	151	AU=(KENDE, A? OR KENDE A?)	
S2	129	AU=(IGLEWSKI, B? OR IGLEWSKI B?)	
S3	24905	AU=(SMITH, R? OR SMITH R?)	
S4	378	AU=(PHIPPS, R? OR PHIPPS R?)	
S5	2120	AU=(PEARSON, J? OR PEARSON J?)	
S6	0	S1 AND S2 AND S3 AND S4 AND S5	
S7	10	S1 AND (S2 OR S3 OR S4 OR S5)	
S8	36	S2 AND (S3 OR S4 OR S5)	
S9	56	S3 AND (S4 OR S5)	
S10	1	S4 AND S5	
S11	1532	(S8 OR S9 OR S1 OR S2 OR S3 OR S4 OR S5) AND ANTIBOD?	
S12	7	S11 AND (AUTOINDUC? OR AUTO(W)INDUC?)	
S13	18	S7 OR S10 OR S12	
S14	4	RD (unique items)	

>>>No matching display code(s) found in file(s): 65, 113

14/3,AB/1 (Item 1 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

10995188 References: 38
TITLE: Quinolone signaling in the cell-to-cell communication system of
Pseudomonas aeruginosa

AUTHOR(S): Pesci EC (REPRINT); Milbank JBJ; Pearson JP; McKnight S;
Kende AS; Greenberg EP; Iglesias BH

AUTHOR(S) E-MAIL: epesci@brody.med.ecu.edu

CORPORATE SOURCE: E Carolina Univ, Dept Microbiol & Immunol, 600 Moye
Boulevard, BT 132/Greenville//NC/27858 (REPRINT); E Carolina Univ, Dept
Microbiol & Immunol, /Greenville//NC/27858; Univ Rochester, Dept Chem,
/Rochester//NY/14627; Univ Rochester, Dept Microbiol & Immunol,
/Rochester//NY/14642; Univ Iowa, Dept Microbiol, /Iowa City//IA/52242

PUBLICATION TYPE: JOURNAL

PUBLICATION: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED
STATES OF AMERICA, 1999, V96, N20 (SEP 28), P11229-11234

GENUINE ARTICLE#: 241DY

PUBLISHER: NATL ACAD SCIENCES, 2101 CONSTITUTION AVE NW, WASHINGTON, DC
20418 USA

ISSN: 0027-8424

Searcher : Shears 571-272-2528

09/772599

LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Numerous species of bacteria use an elegant regulatory mechanism known as quorum sensing to control the expression of specific genes in a cell-density dependent manner. In Gram-negative bacteria, quorum sensing systems function through a cell-to-cell signal molecule (autoinducer) that consists of a homoserine lactone with a fatty acid side chain. Such is the case in the opportunistic human pathogen *Pseudomonas aeruginosa*, which contains two quorum sensing systems (las and rhl) that operate via the autoinducers, N-(3-oxododecanoyl)-L-homoserine lactone and N-butyryl-L-homoserine lactone. The study of these signal molecules has shown that they bind to and activate transcriptional activator proteins that specifically induce numerous *P. aeruginosa* virulence genes. We report here that *P. aeruginosa* produces another signal molecule, 2-heptyl-3-hydroxy-4-quinolone, which has been designated as the *Pseudomonas* quinolone signal. It was found that this unique cell-to-cell signal controlled the expression of lasB, which encodes for the major virulence factor, LasB elastase. We also show that the synthesis and bioactivity of *Pseudomonas* quinolone signal were mediated by the *P. aeruginosa* las and rhl quorum sensing systems, respectively. The demonstration that 2-heptyl-3-hydroxy-4-quinolone can function as an intercellular signal sheds light on the role of secondary metabolites and shows that *P. aeruginosa* cell-to-cell signaling is not restricted to acyl-homoserine lactones.

14/3,AB/2 (Item 2 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
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07801992 References: 31
TITLE: Functional analysis of the *Pseudomonas aeruginosa* autoinducer PAI
AUTHOR(S): Passador L; Tucker KD; Guertin KR; Journet MP; Kende AS;

Iglewski BH

CORPORATE SOURCE: UNIV ROCHESTER, MED CTR, DEPT MICROBIOL & IMMUNOL/ROCHESTER//NY/14642 (REPRINT); UNIV ROCHESTER, MED CTR, DEPT MICROBIOL & IMMUNOL/ROCHESTER//NY/14642; UNIV ROCHESTER, DEPT CHEM/ROCHESTER//NY/14642

PUBLICATION TYPE: JOURNAL

PUBLICATION: JOURNAL OF BACTERIOLOGY, 1996, V178, N20 (OCT), P5995-6000

GENUINE ARTICLE#: VL472

PUBLISHER: AMER SOC MICROBIOLOGY, 1325 MASSACHUSETTS AVENUE, NW, WASHINGTON, DC 20005-4171

ISSN: 0021-9193

LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: A series of structural analogs of the *Pseudomonas aeruginosa* autoinducer [PAI, N-3-oxo-dodecanoyl homoserine lactone] were obtained and tested for their ability to act as autoinducers in stimulating the expression of the gene for elastase (lasB) by measuring beta-galactosidase production from a lasB-lacZ gene fusion in the presence of the transcriptional activator LasR. The data suggest that the length of the acyl side chain of the autoinducer molecule is the most critical factor for activity. Replacement of the ring Oby S in the homoserine lactone moiety can be tolerated. Tritium-labelled PAI ([H-3]PAI) was synthesized and used to demonstrate the association of [H-3]PAI with cells overexpressing LasR.

Searcher : Shears 571-272-2528

The PAI analogs were also tested for their ability to compete with [³H]PAI for binding of LasR. Results from the competition assays suggest that once again the length of the acyl side chain appears to be crucial for antagonist activity. The presence of the 3-oxo moiety also plays a significant role in binding since analogs which lacked this moiety were much less effective in blocking binding of [³H]PAI. All analogs demonstrating competition with PAI in binding to LasR also exhibited the ability to activate lasB expression, suggesting that they are functional analogs of PAI.

14/3,AB/3 (Item 1 from file: 348)
DIALOG(R) File 348:EUROPEAN PATENTS
(c) 2004 European Patent Office. All rts. reserv.

01425432

NOVEL AUTOINDUCER MOLECULES AND USES THEREFOR
NEUE AUTOINDUZIERENDE MOLEKULE UND IHRE VERWENDUNGEN
NOUVELLES MOLECULES AUTOINDUCTRICES ET LEURS UTILISATIONS
PATENT ASSIGNEE:

University of Iowa Research Foundation Inc., (2483793), 214 Technology Innovation Center, Iowa City, IA 52242, (US), (Applicant designated States: all)
THE UNIVERSITY OF ROCHESTER, (290265), 518 Hylan Building, Rochester, NY 14627-0140, (US), (Applicant designated States: all)
East Carolina University
Medical Science Building, (907794), 2W-33 Brody University, Greenville, NC 27858, (US), (Applicant designated States: all)

INVENTOR:

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MILBANK, Jared, B, J, 2/25 Essex Road, Mount Eden, (NZ)
PEARSON, James, P., 14 Gray Street, Cambridge, MA 02138, (US)
KENDE, Andrew, S., 19 Larchwood Drive, Pittsford, NY 14534, (US)
GREENBERG, Everett, Peter, 4020 Stewart Road, Iowa City, IA 52240, (US)
IGLEWSKI, Barbara, H., 8 McCoord Woods, Fairport, NY 14450, (US)

PATENT (CC, No, Kind, Date):

WO 2002018342 020307

APPLICATION (CC, No, Date): EP 2001966467 010831; WO 2001US27165 010831
PRIORITY (CC, No, Date): US 229715 P 000831

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: C07D-215/00

LANGUAGE (Publication, Procedural, Application): English; English; English

14/3,AB/4 (Item 1 from file: 357)
DIALOG(R) File 357:Derwent Biotech Res.
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0290196 DBR Accession No.: 2002-12043 PATENT
New quinoline, benzopyran and benzothiopyran derivatives, useful in treatment of cystic fibrosis, are autoinducer molecules that inhibit or synergistically enhance activity of 2-heptyl-3-hydroxy-4-quinolone - antibiotic production via bacterium culture medium fermentation useful in disease therapy

AUTHOR: PESCI E C; MILBANK J B J; PEARSON J P; KENDE A S;
GREENBERG E P; IGLEWSKI B H

PATENT ASSIGNEE: UNIV IOWA RES FOUND; UNIV ROCHESTER; UNIV EAST CAROLINA
2002

PATENT NUMBER: WO 200218342 PATENT DATE: 20020307 WPI ACCESSION NO.:
2002-281057 (200232)

PRIORITY APPLIC. NO.: US 229715 APPLIC. DATE: 20000831

NATIONAL APPLIC. NO.: WO 2001US27165 APPLIC. DATE: 20010831

LANGUAGE: English

ABSTRACT: DERWENT ABSTRACT: NOVELTY - Quinoline, benzopyran and benzothiopyran derivatives (I) are new. DETAILED DESCRIPTION - Quinoline, benzopyran and benzothiopyran derivatives of formula (I) and their salts are new. R1-R4 = H, alkyl, alkenyl, alkynyl, OH, NH2, SH, OR6, NR7R8 or halo; R5 = H, SH, OH, OR6 or NR7R8; R6 = H or 1-4C alkyl; R7, R8 = H, 1-4C alkyl, O or S; X, Y' = S, O or NR9; R9 = H, O, S or 1-4C alkyl; and Q = tail group. INDEPENDENT CLAIMS are also included for the following: (1) a culture medium for microorganism comprising (I) to stimulate or promote the metabolism, growth and/or recovery of the microorganism; (2) identifying a compound that modulates an autoinducer molecule in bacteria involving: (a) providing a cell comprising quorum sensing controlled gene, in which the cell is responsive to an autoinducer molecule so as to generate a detectable signal; (b) contacting the cell with an autoinducer in the presence or absence of a test compound; and (c) detecting a change in the detectable signal to identify the test compound as a modulator of an autoinducer molecule in bacteria; (3) regulating the expression of a gene in bacteria involving: (i) inserting a gene into bacteria for enhancement of gene expression using (I) which enhances the activity of the LasR and/or RhlR protein; and (ii) incubating the bacteria with (I) which enhances the activity of the LasR protein to regulate the expression of the gene; and (4) modulating quorum sensing signaling in bacteria involving providing bacteria comprising quorum sensing controlled gene responsive to the autoinducer molecule and incubating the bacteria with (I) such that the quorum sensing signaling in bacteria is modulated. ACTIVITY - Antiseborrheic; dermatological; antibacterial; MECHANISM OF ACTION - Gene expression regulator; LasR protein regulator; RhlR protein regulator; Modulator; 2-heptyl-3-hydroxy-4-quinolone inhibitor; Induction of virulence factor and biofilm formation inhibitors. USE - (I) inhibits the infectivity of *Pseudomonas aeruginosa* (claimed); in the treatment of immunocompromised subject infected with *Pseudomonas aeruginosa* e.g. cystic fibrosis. (I) modulates quorum sensing signaling in bacteria. In the treatment of middle ear infection, osteomyelitis, acne, dental cavities and prostatitis. ADMINISTRATION - (I) is administered parenterally (including intravenously, intramuscularly, intraarterially, intrathecally, intracapsularly, intraorbitally, intracardiactly, intradermally, intraperitoneally, transtracheally, subcutaneously, subcuticularly, intraarticularly, subcapsularly, subarachnoidally, intraspinally, as intrasternal injection or by infusion), enterally or topically. ADVANTAGE - (I) regulates gene expression in bacteria such as *Pseudomonas aeruginosa*. The gene expresses a virulence factor, which is an alkylene protease such as an elastase or exotoxin A. (I) regulates the activity of the LasR and/or RhlR proteins of *Pseudomonas aeruginosa*. (I) modulates and inhibits the autoinducer activity of (II). (I) synergistically enhances the activity of (II). (I) is an antagonist of the LasR and/or RhlR proteins of *Pseudomonas aeruginosa*.

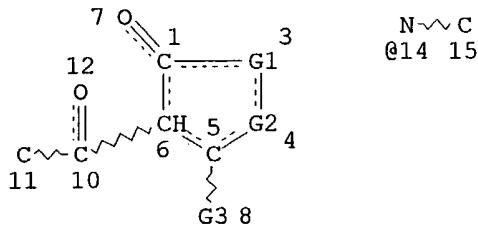
09/772599

(I) inhibits the activity of at least one microorganism that regulates expression of virulence factors. (I) affects the ability of the microorganism to initially infect or further infect an organism e.g. *Pseudomonas aeruginosa*. EXAMPLE - A mixture of 2-heptylquinolone (2 g), hexamine (0.58 g) and trifluoroacetic acid (12.3 ml) was refluxed under argon for 27 hours. Methanol (20 ml) and water (20 ml) were added and heating was continued for 50 minutes. Hydrochloric acid (10 ml) was added and the heating was continued for 30 minutes. After work up, 3-formyl-2-heptylquinolone (A) (0.99 g) was obtained. Aqueous hydrogen peroxide (1.49 ml) was added to a solution of (A) (0.41 g) in ethanol (4.5 ml) and aqueous sodium hydroxide (1.49 ml) under argon, and the mixture was stirred at room temperature for 6 hours. After work up, 2-heptyl-3-hydroxy-4-quinolone (0.29 g, 74 % yield) was obtained. (42 pages)

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$$Z = \emptyset$$

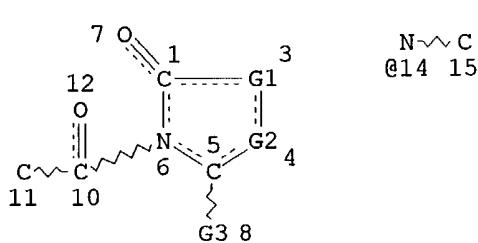
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VAR G1=O/S/NH/14
REP G2=(0-3) C
VAR G3=H/C/CO2H
NODE ATTRIBUTES:
NSPEC IS RC AT 15
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
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GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE
L4 STR



$$z = \phi$$

```
VAR G1=O/S/NH/14
REP G2=(0-3) C
VAR G3=H/C/CO2H
NODE ATTRIBUTES:
NSPEC IS RC AT 15
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
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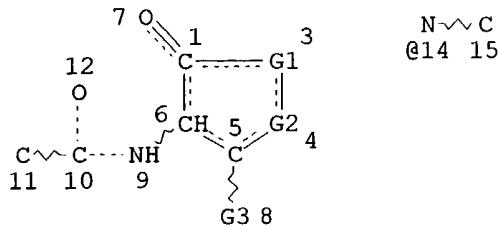
GRAPH ATTRIBUTES:

BSPEC I

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

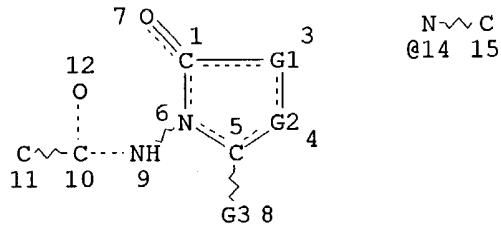
L5 (11049) SEA FILE=REGISTRY SSS FUL L1 OR L2
L6 (12207) SEA FILE=REGISTRY SSS FUL L3 OR L4
L7 STR



VAR G1=O/S/NH/14
 REP G2=(0-3) CH2
 VAR G3=H/C/CO2H
 NODE ATTRIBUTES:
 NSPEC IS RC AT 15
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC I
 NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE
 L8 STR

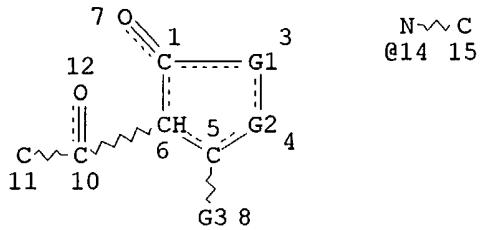


VAR G1=O/S/NH/14
 REP G2=(0-3) CH2
 VAR G3=H/C/CO2H
 NODE ATTRIBUTES:
 NSPEC IS RC AT 15
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC I
 NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE
 L9 (9847) SEA FILE=REGISTRY SUB=L5 SSS FUL (L7 OR L8)
 L10 STR

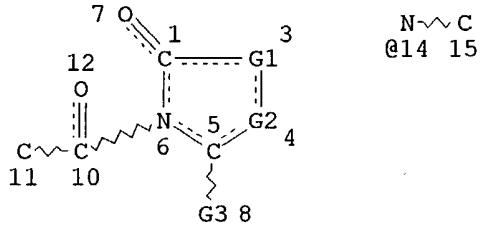
09/772599



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VAR G1=O/S/NH/14
REP G2=(0-3) CH2
VAR G3=H/C/CO2H
NODE ATTRIBUTES:
NSPEC    IS RC      AT 15
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
```

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE
L11 STR



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VAR G1=O/S/NH/14
REP G2=(0-3) CH2
VAR G3=H/C/CO2H
NODE ATTRIBUTES:
NSPEC IS RC AT 15
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
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GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE
L12 (8648) SEA FILE=REGISTRY SUB=L6 SSS FUL (L10 OR L11)
L13 18493 SEA FILE=REGISTRY ABB=ON PLU=ON L9 OR L12

FILE 'CAPLUS' ENTERED AT 10:24:16 ON 03 AUG 2004
L14 6393 S L13
L15 69 S L14 AND ANTIBOD?
L16 28 S L15 NOT (PY=>1998 OR PY=>19980416)

E20 THROUGH E38 ASSIGNED

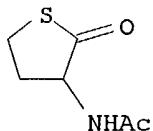
L16 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1997:297330 CAPLUS
 DOCUMENT NUMBER: 127:9014
 TITLE: Peptomer Aluminum Oxide Nanoparticle Conjugates as Systemic and Mucosal Vaccine Candidates: Synthesis and Characterization of a Conjugate Derived from the C4 Domain of HIV-1MN Gp120
 AUTHOR(S): Frey, Andreas; Neutra, Marian R.; Robey, Frank A.
 CORPORATE SOURCE: Department of Pediatrics, Harvard Medical School, Boston, MA, 02115, USA
 SOURCE: Bioconjugate Chemistry (1997), 8(3), 424-433
 CODEN: BCCHE; ISSN: 1043-1802
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Peptomers are polymers composed of peptides that are specifically crosslinked in a head-to-tail fashion. Recently, a peptomer composed of an amphipathic peptide from the C4 domain of HIV-1MN gp120 was shown to display a prominent α -helical conformation that, as an immunogen, elicited rabbit **antibodies** recognizing native and recombinant gp120 [Robey et al. (1995) J. Biol. Chemical 270, 23918-23921]. For the present study, we synthesized a conjugate composed of the C4 peptomer covalently linked to calcined aluminum oxide nanoparticles. The nanoparticles were first reacted with 3-aminopropyltriethoxysilane to provide an amine load of 15.9 mmol of R-NH₂/g of solid. The amine-modified aluminum oxide nanoparticles then were reacted with N-acetylhomocysteine thiolactone at pH 10 to place a reactive thiol on the nanoparticles. A bromoacetylated C4 peptomer, modified at the ϵ -amines of lysine residues, then was reacted with the thiolated nanoparticles to give the peptomer covalently linked to aluminum oxide via a thioether bond. The peptomer load was determined to be 16 mg of peptomer/g of particles, a 55% theor. yield. Particle shape and size of the peptomer-conjugated alumina were analyzed by electron microscopy and displayed a mean maximum diameter of 355 nm and a mean min. diameter of 113 nm, well within the desired size range of 300 nm believed to be optimal for mucosal immunization purposes. Exptl. determined values of mean particle diams., sp. surface area, and specific peptomer load provided the information necessary to calculate the mean antigen load, which was determined to be 53 000 \pm 42 000 peptomer epitopes per particle. Peptomer-alumina conjugates, such as that described here, could form the basis of a new class of biomaterial that combines a chemical defined organic immunogen with a nontoxic chemical defined inorg. adjuvant.

IT 1195-16-0DP, N-Acetylhomocysteine thiolactone, reaction products with aluminum oxide, conjugates with peptomer
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (conjugate of peptomer derived from C4 domain of HIV-1MN Gp120 and aluminum oxide nanoparticle as systemic and mucosal vaccines)

RN 1195-16-0 CAPLUS

CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX
NAME)



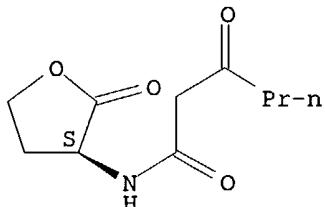
L16 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1997:296287 CAPLUS
 DOCUMENT NUMBER: 126.339478
 TITLE: Molecular characterization and expression of the
Erwinia carotovora *hrpNEcc* gene, which encodes
 an elicitor of the hypersensitive reaction
 AUTHOR(S): Mukherjee, Asita; Cui, Yaya; Liu, Yang;
 Chatterjee, Arun K.
 CORPORATE SOURCE: Department of Plant Pathology, University of
 Missouri, Columbia, MO, 65211, USA
 SOURCE: Molecular Plant-Microbe Interactions (1997),
 10(4), 462-471
 CODEN: MPMIEL; ISSN: 0894-0282
 PUBLISHER: American Phytopathological Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The nucleotide sequence of *hrpNEcc* DNA, cloned from *Erwinia carotovora* subsp. *carotovora* strain Ecc71, reveals a coding region of 1,068 bp which matches the size of *hrpNEcc* transcripts. Gene *hrpNEcc* is predicted to encode a glycine-rich protein of approx. 36 kDa. Like the elicitors of the hypersensitive reaction (HR) produced by *E. chrysanthemi* (HarpinEch) and *E. amylovora* (HarpinEa), the deduced 36-kDa protein does not possess a typical signal sequence, but it contains a putative membrane-spanning domain. In *Escherichia coli* strains overexpressing *hrpNEcc*, the 36-kDa protein has been identified as the *hrpNEcc* product by Western blot anal. using anti-HarpinEch antibodies. The 36-kDa protein fractionated from *E. coli* elicits the HR in tobacco leaves. Moreover, a HrpN- and RsmA- double mutant (RsmA = regulator of secondary metabolites) does not produce this 36-kDa protein or elicit the HR, although this strain, like the RsmA- and HrpN+ bacteria, overproduces extracellular enzymes and macerates celery petioles. These observations demonstrate that *hrpNEcc* encodes the elicitor of the HR, designated HarpinEcc. The levels of *hrpNEcc* transcripts are affected in both RsmA+ and RsmA- strains by media composition and carbon sources, although the mRNA levels are substantially higher in the RsmA- strains. The expression of *hrpNEcc* in Ecc71 is cell d. dependent and is activated by the quorum-sensing signal, N-(3-oxohexanoyl)-L-homoserine lactone (OHL). By contrast, *hrpNEcc* expression in an RsmA- strain is independent of cell d., and substantial expression occurs in the absence of OHL. The effects of cultural conditions and the occurrence of putative cis-acting sequences, such as consensus σ54 promoters and an *hrp* promoter upstream of the transcriptional start site, indicate

that the production of HarpinEcc in wild-type RsmA+ *E. carotovora* subsp. *carotovora* is tightly regulated. These observations, taken along with the finding that the HR is caused by RsmA- mutants but not by RsmA+ strains (Cui et al., 1996, Mol. Plant-Microbe Interact. 9:565-573), strongly support the idea that the inability of the wild-type pectolytic *E. carotovora* subsp. *carotovora* to elicit the HR is due to the lack of a significant level of HarpinEcc production

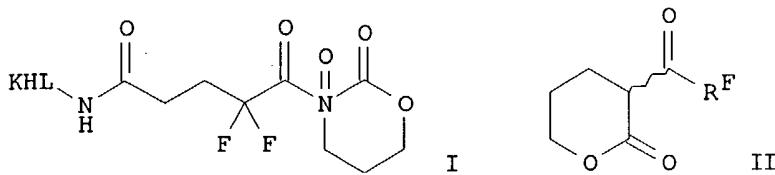
IT 143537-62-6, N-(3-Oxohexanoyl)-L-homoserine lactone
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (gene *hrpNEcc* expression in *Erwinia carotovora carotovora* strain c71 activated by quorum-sensing signal N-(3-oxohexanoyl)-L-homoserine lactone)
 RN 143537-62-6 CAPLUS
 CN Hexanamide, 3-oxo-N-[(3S)-tetrahydro-2-oxo-3-furanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1996:592222 CAPLUS
 DOCUMENT NUMBER: 125:328451
 TITLE: Preparation of heterocyclic compounds via carbon-carbon bond formation catalyzed by an antibody
 AUTHOR(S): Kitazume, Tomoya; Tsukamoto, Takashi; Murata, Kouichi; Yoshimura, Koutaro
 CORPORATE SOURCE: Department of Bioengineering, Tokyo Institute of Technology Nagatsuta, Midori-ku, Yokohama, 226, Japan
 SOURCE: Journal of Molecular Catalysis B: Enzymatic (1996), 2(1), 27-31
 CODEN: JMCEF8; ISSN: 1381-1177
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 125:328451
 GI

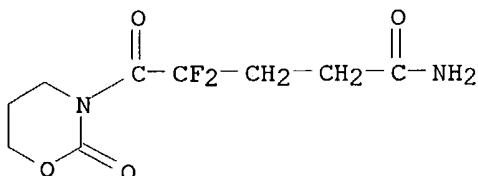


AB A monoclonal **antibody**, elicited by a transition-state analog (I; KHL = keyhole limpet hemocyanin), acted as an enzyme-like catalyst for the formation of a carbon-carbon bond in the cyclization of diesters $\text{RFCO}_2(\text{CH}_2)_4\text{CO}_2\text{Me}$ [RF = CHF₂, CF₃] to give chiral δ -lactones II. The generation of a carbanion by the action of an abzyme, and the internal nucleophilic attack on an activated functional group, such as a carbonyl and/or imine group with an attached fluoroalkyl group, are described. The method gave (+)-II [RF = CHF₂] in 64% yield and >56% ee, and (+)-II [RF = CF₃] in 57% yield and >54% ee.

IT 183279-70-1DP, conjugate with keyhole limpet hemocyanin
 RL: BPR (Biological process); BSU (Biological study, unclassified);
 SPN (Synthetic preparation); BIOL (Biological study); PREP
 (Preparation); PROC (Process)
 (antigen; preparation of (fluoroacetyl)pyrone derivs. from
 (fluoroacetoxy)pentanoates via **antibody**-catalyzed
 carbon-carbon bond formation)

RN 183279-70-1 CAPLUS

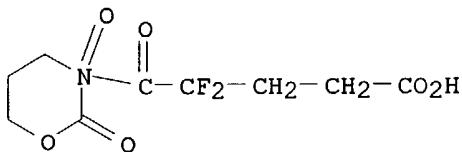
CN 2H-1,3-Oxazine-3(4H)-pentanamide, γ,γ -difluorodihydro-
 δ ,2-dioxo- (9CI) (CA INDEX NAME)



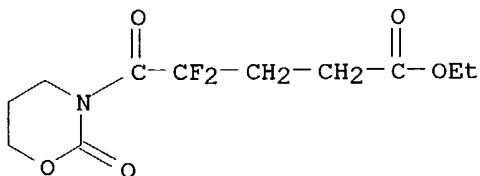
IT 183279-71-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (hapten; preparation of (fluoroacetyl)pyrone derivs. from
 (fluoroacetoxy)pentanoates via **antibody**-catalyzed
 carbon-carbon bond formation)

RN 183279-71-2 CAPLUS

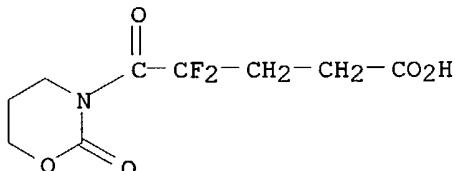
CN 2H-1,3-Oxazine-3(4H)-pentanoic acid, γ,γ -difluorodihydro-
 δ ,2-dioxo-, 3-oxide (9CI) (CA INDEX NAME)



IT 183279-68-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (intermediate for antigen; preparation of (fluoroacetyl)pyrone derivs.
 from (fluoroacetoxy)pentanoates via **antibody**-catalyzed
 carbon-carbon bond formation)
 RN 183279-68-7 CAPLUS
 CN 2H-1,3-Oxazine-3(4H)-pentanoic acid, γ,γ -difluorodihydro-
 8,2-dioxo-, ethyl ester (9CI) (CA INDEX NAME)

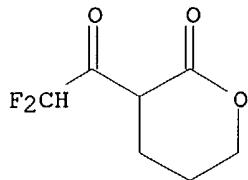


IT 183279-69-8P
 RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological
 study); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of (fluoroacetyl)pyrone derivs. from
 (fluoroacetoxy)pentanoates via **antibody**-catalyzed
 carbon-carbon bond formation)
 RN 183279-69-8 CAPLUS
 CN 2H-1,3-Oxazine-3(4H)-pentanoic acid, γ,γ -difluorodihydro-
 8,2-dioxo- (9CI) (CA INDEX NAME)



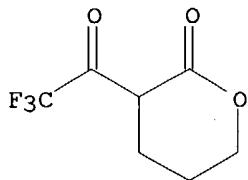
IT 183279-72-3P, (+)-3-(Difluoroacetyl)tetrahydro-2-pyrone
 183279-74-5P, (+)-3-(Trifluoroacetyl)tetrahydro-2-pyrone
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of (fluoroacetyl)pyrone derivs. from
 (fluoroacetoxy)pentanoates via **antibody**-catalyzed
 carbon-carbon bond formation)
 RN 183279-72-3 CAPLUS
 CN 2H-Pyran-2-one, 3-(difluoroacetyl)tetrahydro-, (+)- (9CI) (CA INDEX
 NAME)

Rotation (+).

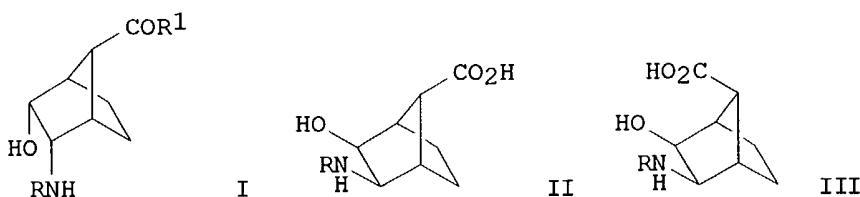


RN 183279-74-5 CAPLUS
 CN 2H-Pyran-2-one, tetrahydro-3-(trifluoroacetyl)-, (+)- (9CI) (CA
 INDEX NAME)

Rotation (+).



L16 ANSWER 4 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1996:48972 CAPLUS
 DOCUMENT NUMBER: 124:233090
 TITLE: Norbornyl dipeptide analogs: mimics of both a transition state and a torsionally distorted ground state
 AUTHOR(S): Smith, Robert M.; Weiner, David P.; Chaturvedi, Nishith C.; Thimblin, Michael D., Jr.; Raymond, Susan J.; Hansen, David E.
 CORPORATE SOURCE: Dept. Chem., Amherst College, Amherst, MA, 01002, USA
 SOURCE: Bioorganic Chemistry (1995), 23(4), 397-414
 CODEN: BOCMBM; ISSN: 0045-2068
 PUBLISHER: Academic
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



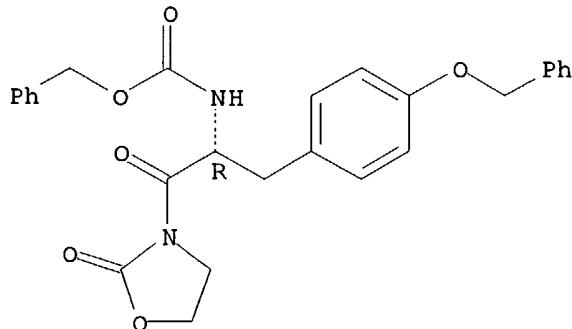
AB The 1-amino-2-hydroxybicyclo[2.2.1]heptane-7-carboxylic acid derivs. I-III (R = H, R1 = OH) have been synthesized, the pivotal step being the use of an acyl nitrene-insertion reaction to introduce nitrogen functionality into the corresponding hydroxy ester. The analogs each mimic a distorted peptide ground state as well as the transition state for peptide bond hydrolysis. To enhance the immune response and to provide further sequence specificity, the analogs I-III (R = H, R1 = OH) have been coupled to at least one D-amino acid residue to yield peptides I (R = H-D-Tyr, R1 = D-Phe-OH), and II and III (R = H-D-Phe) resp. **Antibodies** elicited against these derivs. may catalyze the hydrolysis of the corresponding peptide both by straining the substrate ground state and by stabilizing the transition state.

IT 174471-30-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (preparation of aminonorbornanecarboxylic acid-containing peptides as
 both transition state and torsionally distorted ground state mimics)

RN 174471-30-8 CAPLUS

CN Carbamic acid, [2-oxo-2-(2-oxo-3-oxazolidinyl)-1-[(4-phenylmethoxy)phenyl]methyl]ethyl-, phenylmethyl ester, (R)- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



L16 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1995:274998 CAPLUS
 DOCUMENT NUMBER: 122:75610
 TITLE: Bifunctional chelators and their use in
 radiopharmaceuticals
 INVENTOR(S): Erber, Sebastian; Dinkelborg, Ludger; Rohlfs,
 Gerhard; Schulze, Paul-Eberhard; Noll, Bernhard
 PATENT ASSIGNEE(S): Institut fuer Diagnostikforschung GmbH an der
 Freien Universitaet Berlin, Germany
 SOURCE: PCT Int. Appl., 81 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9422491	A1	19941013	WO 1994-DE369	199403 29
W: AU, CA, HU, JP, KR, NO, NZ, US RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 4311021	A1	19941027	DE 1993-4311021	199303 31
CA 2156618	AA	19941013	CA 1994-2156618	199403 29
AU 9465015	A1	19941024	AU 1994-65015	199403 29
EP 692979	A1	19960124	EP 1994-912439	199403 29
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
HU 72733	A2	19960528	HU 1995-2858	199403 29
JP 08508261	T2	19960903	JP 1994-521540	199403 29
NO 9503865	A	19951123	NO 1995-3865	199509 29
PRIORITY APPLN. INFO.:				
DE 1993-4311021				
199303 31				
WO 1994-DE369				
199403 29				

OTHER SOURCE(S): CASREACT 122:75610; MARPAT 122:75610

AB New technetium and rhenium chelate compds. are disclosed, as well as a process for their preparation, radiopharmaceuticals containing these compds., conjugates of these compds. with substances which selectively accumulate in diseased tissues, in particular peptides and proteins, as well as the preparation of compns. containing these compds. and their use in radiodiagnostic exams. Thus, successive condensation of glycylglycylpropargylamide with acetylmercaptosuccinic anhydride followed by hexadecylamine produced N-(3-hexadecylaminocarbonyl-2-acetylthiopropionyl)glycylglycylpropargylamide, which was converted to a ^{99m}Tc complex with TcO_4^- . When injected i.v. into rabbits, this complex became localized in atherosclerotic plaques.

IT 160009-80-3 160009-81-4 160080-58-0

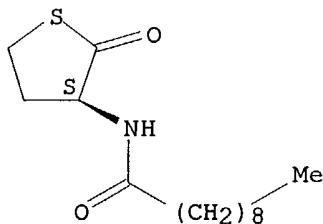
09/772599

RL: RCT (Reactant); RACT (Reactant or reagent)
(bifunctional chelators for use in radiopharmaceuticals)

RN 160009-80-3 CAPLUS

CN Decanamide, N-[(3S)-tetrahydro-2-oxo-3-thienyl]- (9CI) (CA INDEX
NAME)

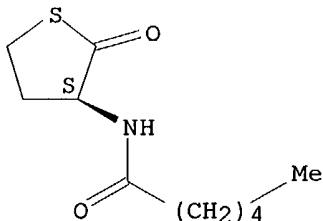
Absolute stereochemistry.



RN 160009-81-4 CAPLUS

CN Hexanamide, N-[(3S)-tetrahydro-2-oxo-3-thienyl]- (9CI) (CA INDEX
NAME)

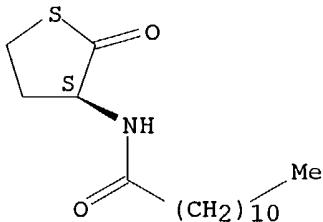
Absolute stereochemistry.



RN 160080-58-0 CAPLUS

CN Dodecanamide, N-(tetrahydro-2-oxo-3-thienyl)-, (S)- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



L16 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:298640 CAPLUS

DOCUMENT NUMBER: 120:298640

TITLE: Novel barbiturate derivatives and protein and
polypeptide barbiturate derivative conjugates

Searcher : Shears 571-272-2528

and labels

INVENTOR(S): Buechler, Kenneth Francis
 PATENT ASSIGNEE(S): Biosite Diagnostics Inc., USA
 SOURCE: PCT Int. Appl., 23 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9320064	A1	19931014	WO 1993-US3039	199303 31
W: AU, CA, JP RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5414085	A	19950509	US 1992-864110	199204 06
AU 9340452	A1	19931108	AU 1993-40452	199303 31
EP 635013	A1	19950125	EP 1993-911571	199303 31
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 07505636	T2	19950622	JP 1993-517676	199303 31
PRIORITY APPLN. INFO.:			US 1992-864110	199204 06
			WO 1993-US3039	199303 31

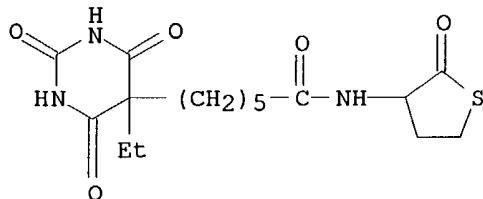
OTHER SOURCE(S): MARPAT 120:298640

AB The barbiturates I (R = H, aliphatic group; R1 = linking group) and immunogenic proteins or polypeptides containing such barbiturate derivs. are claimed. The novel barbiturate derivs. are synthesized for covalent attachment to antigens for the preparation of **antibodies** or receptors to barbiturate metabolites. The resulting antigens may be used for the production of **antibodies** or receptors using standard methods. Once generated, the **antibodies** or receptors and the novel derivs. which are covalently attached to proteins, polypeptides or labels may be used in immunoassay processes.

IT 153937-33-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation as intermediate for barbiturate-protein conjugate for immunoassay)

RN 153937-33-8 CAPLUS

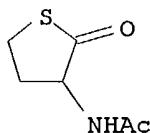
CN 5-Pyrimidinehexanamide, 5-ethylhexahydro-2,4,6-trioxo-N-(tetrahydro-2-oxo-3-thienyl)- (9CI) (CA INDEX NAME)



L16 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1993:537190 CAPLUS
 DOCUMENT NUMBER: 119:137190
 TITLE: Cyclic V3-loop-related HIV-1 conjugate vaccines. Synthesis, conformation and immunological properties
 AUTHOR(S): Tolman, R. L.; Bednarek, M. A.; Johnson, B. A.; Leanza, W. J.; Marburg, S.; Underwood, D. J.; Emini, E. A.; Conley, A. J.
 CORPORATE SOURCE: Merck Res. Lab., Rahway, NJ, USA
 SOURCE: International Journal of Peptide & Protein Research (1993), 41(5), 455-66
 CODEN: IJPPC3; ISSN: 0367-8377
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Branched undecapeptides with sequences related to the virus glycoprotein V3 domain sequences of the MN and IIIB variants of HIV-1 were synthesized and cyclized with a peptide (amide) closure to cyclic decapeptides. Two-dimensional NMR studies allowed protons for the MN variant-related cycle (L-697,250) to be assigned. Mol. modeling with distance geometry methods permitted a conformation to be identified which showed good agreement with ROESY and 2D NMR study data. A mol. dynamics simulation showed that the highly conserved loop tip sequence (Gly-Pro-Gly-Arg) was in a conventional β -turn <50% of the time. For evaluation of immunogenicity and antibody characterization studies, covalent carrier conjugates were prepared. Maleimidopropionylation of the Nle amino group of the cyclic peptides gave an electrophilic tether which captured a thiol group from a thiolated carrier protein, OMPC (outer membrane protein complex of *Neisseria meningitidis*). Through the use of a novel co-conjugation procedure, soluble immunogen-carrier mols. were prepared which had suitable phys. properties for use as a vaccine. These V3-loop-based vaccines could elicit neutralizing antibody, but not consistently in all animals. Characterization of sera showed that responses were broadly virus neutralizing.
 IT 1195-16-0DP, N-Acetylhomocysteine thiolactone, OMPC protein conjugates
 RL: PREP (Preparation)
 (preparation and HIV-1 envelope glycoprotein cyclic V3 loop conjugation of, HIV-1 vaccine in relation to)
 RN 1195-16-0 CAPLUS

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CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX
NAME)



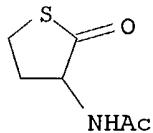
L16 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:480195 CAPLUS
DOCUMENT NUMBER: 119:80195
TITLE: Protein-dimeric polysaccharide conjugate vaccine
INVENTOR(S): Marburg, Stephen; Tolman, Richard L.
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Eur. Pat. Appl., 29 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 534764	A1	19930331	EP 1992-308730	199209 24
R: CH, DE, FR, GB, IT, LI, NL US 5371197	A	19941206	US 1991-766242	199109 24
CA 2078359	AA	19930325	CA 1992-2078359	199209 16
JP 05279399	A2	19931026	JP 1992-254695	199209 24
PRIORITY APPLN. INFO.:			US 1991-766242	199109 24

AB A conjugate immunogen having polysaccharide moieties derived from bacterial sources, provides a multivalent vaccine with a low protein to polysaccharide ratio. The vaccine reduces complications associated with injection of protein immunogens due to pyrogenic responses, such as swelling and pain, and is particularly suitable for administration to infants. OmpC protein conjugates with polyribosyl-ribitol-phosphate (PRP) was reacted with *Streptococcus pneumoniae* 6A polysaccharide (PnPs6A) to obtain a gelatinous mixture, which was filtered and washed. PnPs6A-PRP-OmpC conjugate was adsorbed onto Al(OH)3, then was i.m. administered to chinchillas at the dose of 0.08 μ g PnPs6A and 0.12 μ g PRP at 0 and 4 wks and

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animals were bled at 0, 2, 4, 6, and 8 wks. There were high titers of both anti-PnPs6A and anti-PRP **antibody**.
IT 1195-16-0, N-Acetyl homocysteine thiolactone
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with OmpC protein)
RN 1195-16-0 CAPLUS
CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX NAME)



L16 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:569419 CAPLUS
DOCUMENT NUMBER: 117:169419
TITLE: Peptide-polysaccharide-protein conjugate vaccines against human immunodeficiency virus (HIV)
INVENTOR(S): Marburg, Stephen; Tolman, Richard L.; Emini, Emilio A.
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Eur. Pat. Appl., 63 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 468714	A2	19920129	EP 1991-306620	199107 19
EP 468714 R: CH, DE, FR, GB, IT, LI, NL CA 2047031	A3 AA	19930310 19920120	CA 1991-2047031	199107 15
JP 05260963	A2	19931012	JP 1991-271683	199107 19
PRIORITY APPLN. INFO.:			US 1990-555558	199007 19
			US 1990-555974	199007 19

09/772599

US 1991-715275

199106
19

US 1991-715277

199106
19

OTHER SOURCE(S): MARPAT 117:169419

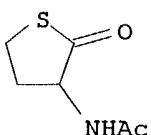
AB Covalent conjugate immunogens, having HIV principal neutralizing determinant (PND) peptides covalently bound to the outer membrane protein complex of *Neisseria* through an anionic polysaccharide linker, are useful for inducing anti-peptide immune responses in mammals, for inducing HIV-neutralizing **antibodies** in mammals, for formulating vaccines to prevent HIV infection or disease (including AIDS), or for treating humans having HIV infection or disease (including AIDS). HIV PND peptide sequences are included, and chemical synthesis of the peptides and the conjugates is included. Development of IgG **antibodies** and of HIV-neutralizing activity was demonstrated.

IT 1195-16-0, N-Acetylhomocysteine thiolactone

RL: BIOL (Biological study)
(in HIV-virus peptide-anionic polysaccharide-protein conjugate preparation)

RN 1195-16-0 CAPLUS

CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX NAME)



L16 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:400277 CAPLUS

DOCUMENT NUMBER: 117:277

TITLE: Mechanism of allergic cross-reactions. I.
Multispecific binding of ligands to a mouse

AUTHOR(S): monoclonal anti-DNP IgE **antibody**
Varga, Janos M.; Kalchschmid, Gertrud; Klein,
Georg F.; Fritsch, Peter

CORPORATE SOURCE: Dep. Dermatol., Univ. Innsbruck, Innsbruck,
6020, Austria

SOURCE: Molecular Immunology (1991), 28(6), 641-54
CODEN: MOIMD5; ISSN: 0161-5890

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A recently developed solid-phase binding assay was used to investigate the specificity of ligand binding to a mouse monoclonal anti-dinitrophenyl IgE (I). All DNP-amino acids, that were tested inhibited the binding of the radio-labeled I to DNP covalently attached to polystyrene microplates; however, the concentration for 50%

inhibition varied within four orders of magnitude, DNP-L-serine being the most and DNP-L-proline the least potent inhibitor. In addition to DNP analogs, a large number of drugs and other compds. were tested for their ability to compete with DNP for the binding site of I. At the concentration used for screening, 59% of compds. had no significant inhibition; 19% inhibited the binding of I more than 50%. Several families of compds. (tetracyclines, polymyxins, phenothiazines, salicylates, and quinones) that were effective competitors were found. Within these families, changes in the functional groups attached to the family stem had major effects on the affinity of ligand binding. The occurrence frequencies of interactions of ligands with I is in good agreement with the semi-empirical model for multispecific **antibody**-ligand interactions.

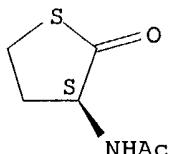
IT 75364-47-5

RL: BIOL (Biological study)
(binding of, to anti-dinitrophenol monoclonal **antibody**,
allergic cross-reaction mechanisms in relation to)

RN 75364-47-5 CAPLUS

CN Acetamide, N-[(3S)-tetrahydro-2-oxo-3-thienyl]- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



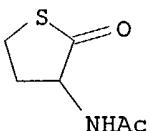
L16 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1991:509496 CAPLUS
DOCUMENT NUMBER: 115:109496
TITLE: Kits, method, and preparation of radiolabeled
antibodies for scintigraphic imaging of
thrombi
INVENTOR(S): Lee, Fook Thean; Boniface, Graeme
PATENT ASSIGNEE(S): Australian Nuclear Science and Technology
Organisation, Australia
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9102547	A1	19910307	WO 1990-AU372	199008
				24

W: AT, AU, BB, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, KP,

KR, LK, LU, MC, MG, MW, NL, NO, RO, SD, SE, SU, US
 RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, IT,
 LU, ML, MR, NL, SE, SN, TD, TG
 CA 2065362 AA 19910225 CA 1990-2065362 199008
 24
 AU 9061790 A1 19910403 AU 1990-61790 199008
 24
 AU 636909 B2 19930513 EP 1990-912565 199008
 EP 489061 A1 19920610 24
 R: CH, DE, FR, GB, IT, LI, NL
 JP 05501107 T2 19930304 JP 1990-511677 199008
 24
 PRIORITY APPLN. INFO.: AU 1989-5960 198908
 24
 WO 1990-AU372 199008
 24

AB Scintigraphic detection of thrombi in mammals is effected by injecting a solution of a radiolabeled protein, **antibody**, or binding fragment of an **antibody**. The protein or **antibody** is directed against blood clots and is thiolated and then labeled with an acceptable radionuclide. An important embodiment is one in which the thiolation step produces the Fab' fragment. Kits for producing an injectable material for use in the imaging are also disclosed. Fab' fragments of monoclonal **antibody** DD-3B6/22 to D-dimer of human crosslinked fibrin was thiolated with DL-acetylhomocysteine thiolactone using 2-pyridinealdehyde as catalyst and then radiolabeled with 99mTc.
 IT 1195-16-0
 RL: BIOL (Biological study)
 (in radiolabeled **antibody** formation, for thrombus scintigraphy)
 RN 1195-16-0 CAPLUS
 CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX NAME)



L16 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1990:493212 CAPLUS
 DOCUMENT NUMBER: 113:93212

09/772599

TITLE: Immunoassay and kit for the detection of α -haloacetamides and reagents therefore
INVENTOR(S): Winzenburger, Peggy Ann; Feng, Paul; Gross, Cindy Jo; Wratten, Stephen Jay; Flaherty, Dennis Keith
PATENT ASSIGNEE(S): Monsanto Co., USA
SOURCE: Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

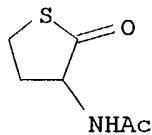
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 340198	A1	19891102	EP 1989-870059	198904 21
EP 340198 R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE BR 8901881	B1 A	19941130 19891128	BR 1989-1881	198904 20
AU 8933269	A1	19891026	AU 1989-33269	198904 21
AU 624813 JP 01318962	B2 A2	19920625 19891225	JP 1989-103281	198904 21
JP 08007211 ES 2019573	B4 T3	19960129 19950301	ES 1989-870059	198904 21
US 5147786	A	19920915	US 1990-619560	199011 29
PRIORITY APPLN. INFO.:			US 1988-184854	198804 22

OTHER SOURCE(S): MARPAT 113:93212
AB **Antibodies**, antigens, ELISA methods, and kits for the detection of α -haloacetamide herbicides in samples are disclosed. Lysine residues of bovine serum albumin and IgG were reacted with N-acetyl homocysteine thiolactone and S-acetylmercaptopsuccinic anhydride, resp., and coupled to alachlor to prepare immunogens for **antibody** production in rabbits. Anti-alachlor **antibodies** were used in an ELISA to screen environmental water samples for alachlor.
IT 1195-16-0, N-Acetylhomocysteine thiolactone
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bovine serum albumin, for **antibody** production for alachlor ELISA)
RN 1195-16-0 CAPIUS

Searcher : Shears 571-272-2528

09/772599

CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX NAME)



L16 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1989:453771 CAPLUS
DOCUMENT NUMBER: 111:53771
TITLE: Signal enhancement in immunoassay by modulation of enzymic catalysis with blocked modulators
INVENTOR(S): Mize, Patrick D.; O'Connell, James P.
PATENT ASSIGNEE(S): Becton, Dickinson and Co., USA
SOURCE: Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 271731	A2	19880622	EP 1987-117014	198711 18
EP 271731	A3	19901024		
EP 271731	B1	19931103		
US 4835099	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE A	19890530	US 1986-932951	198611 20
CA 1287575	A1	19910813	CA 1987-549112	198710 13
AU 8779749	A1	19880526	AU 1987-79749	198710 14
AU 603144 ZA 8707719	B2 A	19901108 19880629	ZA 1987-7719	198710 14
FI 8705070	A	19880521	FI 1987-5070	198711 17
FI 91193	B	19940215		
FI 91193	C	19940525		
EP 501526	A2	19920902	EP 1992-106921	198711 18

Searcher : Shears 571-272-2528

EP 501526	A3	19920909	
EP 501526	B1	19960228	
AT 96911	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE		
	E	19931115	AT 1987-117014
			198711
			18
AT 134606	E	19960315	AT 1992-106921
			198711
			18
JP 63212866	A2	19880905	JP 1987-293038
			198711
			19
JP 06041950	B4	19940601	
DK 8706125	A	19880521	DK 1987-6125
			198711
			20
US 5344952	A	19940906	US 1993-34959
			199303
			22
PRIORITY APPLN. INFO.:			US 1986-932951
			198611
			20
		EP 1987-117014	
			198711
			18
		US 1988-282816	
			198812
			12

OTHER SOURCE(S): MARPAT 111:53771

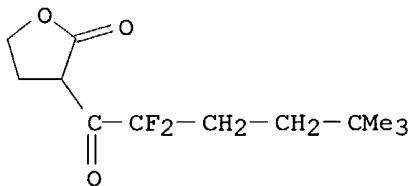
AB An EIA for a ligand includes signal amplification by use of ≥2 enzymes and a blocked modulator for 1 of the enzymes. Ligand binds to an antiligand and an enzyme-labeled tracer. The bound fraction is separated and the enzyme in the tracer removes the blocking group from the blocked modulator. The modulator activates or inhibits a 2nd enzyme which catalyzes the conversion of a substrate to a product, producing a signal such as a color change. A new class of enzyme inhibitors and blocked inhibitors is described. The Markush variables are more narrowly defined. In a sandwich assay for adenovirus, anti-adenovirus **antibody** was coated on a PVC microtiter plate which was then incubated with adenovirus-infected HeLa cells, followed by an anti-adenovirus tracer conjugated to alkaline phosphatase. Excess tracer was removed and the plate was incubated with the blocked inhibitor, diammonium [4-(3-oxo-4,4,4-trifluorobutyl)phenyl] phosphate (I), and rabbit liver esterase (EC 3.1.1.1). After 10 min, o-nitrophenyl butyrate (substrate) was added and the absorbance was monitored at 414 nm. The absorbance was inversely proportional to the antigen concentration. I was prepared in 4 steps beginning with condensation of Et 4,4,4-trifluoromethyl acetoacetate with 4-methoxybenzyl chloride.

IT 121749-63-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, in blocked esterase inhibitor preparation for EIA)

RN 121749-63-1 CAPLUS

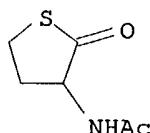
CN 2(3H)-Furanone, 3-(2,2-difluoro-5,5-dimethyl-1-oxohexyl)dihydro-
(9CI) (CA INDEX NAME)



L16 ANSWER 14 OF 28 CAPIUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1989:432995 CAPIUS
 DOCUMENT NUMBER: 111:32995
 TITLE: Drug-protein conjugates. XVIII. Detection of **antibodies** towards the antimalarial amodiaquine and its quinone imine metabolite in man and the rat
 AUTHOR(S): Christie, G.; Breckenridge, A. M.; Park, B. K.
 CORPORATE SOURCE: Dep. Pharmacol. Ther., Univ. Liverpool, Liverpool, L69 3BX, UK
 SOURCE: Biochemical Pharmacology (1989), 38(9), 1451-8
 CODEN: BCPCA6; ISSN: 0006-2952
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A specific ELISA was developed for the detection and characterization of **antibodies** directed against amodiaquine (AQ), an anti-malarial drug associated with agranulocytosis and liver damage in man. The assay incorporated an antigen which was produced by the reaction of amodiaquine quinone imine (AQI), a protein reactive product produced from AQ by silver oxide oxidation, and metallothionein. The protein-conjugate (AQ-MT) had a ratio of AQ to protein of 5.2:1. Specific anti-drug **antibody** was defined as the differential binding to AQ-MT and unconjugated MT which was inhibitable by AQ-mercaptopurate (5 μ M). Following administration of AQ (0.27 mmol/kg; for 4 days) to male Wistar rats there was a significant increase in the IgG anti-AQ activity on day 18 (0.596) compared to pre-injection levels (0.111). This activity was shown to be specific for the AQ determinant by hapten inhibition with AQ (IC₅₀ 250 nM) and AQ-mercaptopurate (IC₅₀ 310 nM). Following administration of AQI (27 μ mol/kg; i.m.; 4 days) there was a significant increase in IgG anti-AQ **antibody** activities on day 18 (0.584) compared to pre-injection levels (0.078). This activity was inhibited by AQ (IC₅₀ 150 nM) and AQ-mercaptopurate (IC₅₀ 180 nM). In addition IgG anti-AQ **antibodies** were detected in four patients who exhibited agranulocytosis and one patients who exhibited hepatitis (range 0.017-0.842) while receiving AQ at a dose of 400 mg weekly for several weeks, but not in individuals who had not received the drug (-0.014). There was no increase in IgG anti-AQ **antibody** activities in patients who had not exhibited an adverse reaction while receiving the drug for the treatment of malaria (-0.059 on day 0 and -0.053 on day 7). Thus, we have shown that AQ is immunogenic in the rat and that the

formation of a chemical reactive metabolite (AQI) is involved in the generation of the **antibody** response. Furthermore, drug-specific **antibodies** were detected in sera from five patients with severe adverse reactions to the drug.

IT 1195-16-0, N-Acetyl-DL-homocysteine thiolactone
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, in albumin thiolation)
 RN 1195-16-0 CAPLUS
 CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX
 NAME)



L16 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1989:148783 CAPLUS
 DOCUMENT NUMBER: 110:148783
 TITLE: Vaccines containing two reproductive hormone conjugates for contraception in animals
 INVENTOR(S): Brandon, Malcolm Roy
 PATENT ASSIGNEE(S): Bunge (Australia) Pty. Ltd., Australia
 SOURCE: PCT Int. Appl., 19 pp.
 CODEN: PIIXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

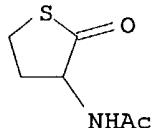
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8801176	A1	19880225	WO 1987-AU241	198707 30
W: AU, JP, US RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8777584	A1	19880308	AU 1987-77584	198707 30
EP 282501	A1	19880921	EP 1987-904825	198707 30
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE JP 01500663	T2	19890309	JP 1987-504697	198707 30
PRIORITY APPLN. INFO.:			AU 1986-7517	198608 18

AB Contraceptive veterinary vaccines include (a) a protein conjugate of LH or FSH or their analogs or derivs., and (b) a protein conjugate of LH-RH or its analogs or derivs. Tetanus toxoid (TT) was treated with 6-maleimidocaproic N-hydroxysuccinimide to give .apprx.30 maleimido groups/100,000 daltons. L-Lys8-LH-RH was thiolated by reaction with N-acetylhomocysteine thiolactone, and the thiolated product reacted with the treated TT to give a TT-LH-RH conjugate. Lyophilized cell wall immunostimulant was mixed with lyophilized TT-LH-RH conjugate and TT-LH conjugate so that each injection contained 200 µg immunostimulant and 250 µg of each conjugate, and the mixture was combined with Marcol-82 oil and emulsified with buffered saline. Ewes cycling regularly every 17 days were treated 21 days apart with the vaccine; the first vaccination was given at detection of estrus. Estrus stopped after the first injection of conjugates, and was not detected over a 12-mo observation period. The presence of **antibodies** to both conjugates, even at relatively low titers, was enough to disrupt reproductive activity in the ewes.

IT 1195-16-0D, N-Acetylhomocysteine thiolactone, conjugates with reproductive hormones
RL: BIOL (Biological study)
(contraceptive vaccine containing, for animal)

RN 1195-16-0 CAPLUS

CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX NAME)



L16 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1988:529686 CAPLUS
 DOCUMENT NUMBER: 109:129686
 TITLE: Spergualin-related compounds, their preparation, and their use as immunomodulators and neoplasm inhibitors
 INVENTOR(S): Takeuchi, Tomio; Saino, Tetsushi; Yoshida, Masao; Takahashi, Katsutoshi; Nakamura, Teruya; Umezawa, Hamao
 PATENT ASSIGNEE(S): Microbiochemical Research Foundation, Japan
 SOURCE: Eur. Pat. Appl., 64 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

09/772599

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 241797	A2	19871021	EP 1987-104659	198703 30
EP 241797	A3	19880720		
EP 241797	B1	19910612		
AT 64378	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE E	19910615	AT 1987-104659	198703 30
ES 2039213	T3	19930916	ES 1987-104659	198703 30
JP 63045247	A2	19880226	JP 1987-75925	198703 31
JP 07045460	B4	19950517		
US 4956504	A	19900911	US 1987-32811	198704 01
FI 8701445	A	19871005	FI 1987-1445	198704 02
FI 86546	B	19920529		
FI 86546	C	19920910		
DK 8701714	A	19871005	DK 1987-1714	198704 03
AU 8771075	A1	19871008	AU 1987-71075	198704 03
AU 599092	B2	19900712		
CN 87102538	A	19871118	CN 1987-102538	198704 03
CN 1016341	B	19920422		
ZA 8702440	A	19871230	ZA 1987-2440	198704 03
HU 44577	A2	19880328	HU 1987-1442	198704 03
HU 204069	B	19911128		
DK 9201027	A	19920818	DK 1992-1027	199208 18
PRIORITY APPLN. INFO.:			JP 1986-77747	198604 04
			EP 1987-104659	198703 30

AB H₂NC(:NH)NH-X-(CH₂)₃CONHCHRCONH(CH₂)₄NR₁(CH₂)₃NHR₂ [I; X = (CH₂)₃-5, p-phenylene; R = H, CH₂OH; R₁ = H, H₂NCHPhCO, Me₂CHCH₂CH(NH₂)CO; R₂ = amino acid or peptide residue; when R₁ ≠ H, R₂ = R₁] and their pharmaceutically acceptable salts, useful as immunomodulators and neoplasm inhibitors, are prepared Hydrogenolysis of 10-[N-[4-(4-GP)butanoyl]-L-seryl]-1-(Z-L-PhG)-1,5,10-TAD dihydrochloride (GP = guanidinophenyl, PhG = phenylglycyl, TAD = triazadecane, Z = benzyloxycarbonyl) (preparation given in a reference example) over Pd black gave 55.63% 10-[N-[4-(4-GP)butanoyl]-L-seryl]-1-L-PhG-1,5,10-TAD dihydrochloride. This at 1.56 mg/kg showed 87% inhibition of antibody formation in mice sensitized i.v. with sheep red blood cells.

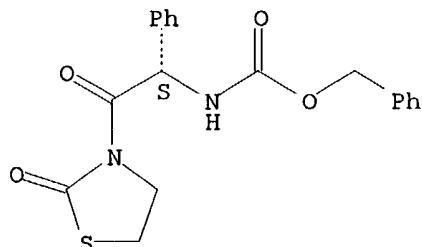
IT 116175-79-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as antitumor and immunomodulating agent intermediate)

RN 116175-79-2 CAPLUS

CN Carbamic acid, [2-oxo-2-(2-oxo-3-thiazolidinyl)-1-phenylethyl]-, phenylmethyl ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L16 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1988:34507 CAPLUS

DOCUMENT NUMBER: 108:34507

TITLE: Process for preparing antibody

complexes through amino groups with retention of antigen-binding ability

INVENTOR(S): Endo, Noriaki; Umemoto, Naoji; Kato, Yoshinori; Hara, Takeshi

PATENT ASSIGNEE(S): Teijin Ltd., Japan

SOURCE: PCT Int. Appl., 120 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 8704171	A1	19870716	WO 1986-JP628	198612 11

W: US

RW: BE, CH, DE, FR, GB, IT, SE
 JP 62228025 A2 19871006 JP 1986-154200

198607
 02

PRIORITY APPLN. INFO.: JP 1985-293003

198512
 27

JP 1986-154200

198607
 02

AB A process for preparing an **antibody** complex for drug tissue targeting or disease diagnosis, etc. comprises modifying some of the amino groups of an **antibody** or its fragment with a reversible modifier for a proteinaceous amino group to reduce the ability of the **antibody** to bind antigen, reacting the remaining amino groups of the **antibody** or the fragment with a compound having a functional group capable of reacting with an amino group, and then removing the reversible modifiers from the product. Anti-melanoma monoclonal **antibody** (ZME 018; IgG2a) in pH 9.0 Na borate-NaCl buffer containing 1 mM EDTA was treated with dimethylmaleic anhydride and then with N-acetylhomocysteinethiolactone for thio group introduction. The **antibody** derivative was reacted with activated thiopropyl Sepharose 4B at 4° for 2 h to form a stationary phase for affinity chromatog.

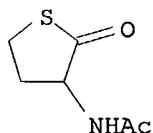
IT 1195-16-0, N-Acetylhomocysteinethiolactone

RL: ANST (Analytical study)

(in preparation of **antibody** or monoclonal **antibody** complexes with neoplasm inhibitors or other substances)

RN 1195-16-0 CAPLUS

CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX NAME)



L16 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1986:530337 CAPLUS
 DOCUMENT NUMBER: 105:130337
 TITLE: Immunosorbent preparation
 INVENTOR(S): Skvortsov, V. T.; Gurvich, A. E.
 PATENT ASSIGNEE(S): Gamalei, N. F., Institute of Epidemiology and Microbiology, USSR
 SOURCE: U.S.S.R. From: Otkrytiya, Izobret. 1986, (17), 88.
 CODEN: URXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Russian

09/772599

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1229204	A1	19860507	SU 1983-3627013	198306 29
PRIORITY APPLN. INFO.:			SU 1983-3627013	198306 29

AB An immunosorbent may be produced by treating porous cellulose spheres with Na metaperiodate. The capacity of the immunosorbent is increased by an addnl. treatment with a excess of 1,5-diaminopentane and N-acetylhomocysteine thiolactone in a carbonate-bicarbonate buffer and with an excess of 5,5-dithiobis(2-nitrobenzoic acid) prior to treatment with Fab1-fragments of **antibodies** in a tris-HCl buffer.

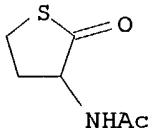
IT 1195-16-0

RL: ANST (Analytical study)

(immunosorbent preparation from oxidized cellulose and diaminopentane and dithiobis(nitrobenzoic acid) and Fab' fragments and)

RN 1195-16-0 CAPLUS

CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX NAME)



L16 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1985:576775 CAPLUS

DOCUMENT NUMBER: 103:176775

TITLE: Characterization of monoclonal **antibodies** to the β -adrenergic antagonist alprenolol as models of the receptor binding site

AUTHOR(S): Sawutz, David G.; Sylvestre, Diana; Homcy, Charles J.

CORPORATE SOURCE: Cell. Mol. Res. Lab., Massachusetts Gen. Hosp., Boston, MA, 02114, USA

SOURCE: Journal of Immunology (1985), 135(4), 2713-18
CODEN: JOIMA3; ISSN: 0022-1767

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Four monoclonal **antibodies** to the β -adrenergic receptor antagonist alprenolol were developed by immunizing A/J mice with (-)alprenolol coupled to keyhole limpet hemocyanin. The antisera from these mice displayed specific [³H]dihydroalprenolol

Searcher : Shears 571-272-2528

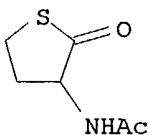
([³H]DNA) binding that was inhibited by alprenolol, propranolol, and isoproterenol. Somatic cell fusion of spleen cells from the immunized mice to SP2/0 myeloma cells, followed by limited dilution subcloning, resulted in the isolation of 4 hybridomas (1B7, 5B7, 5D9, and 2G9) demonstrating 3 different classes of ligand binding affinity for antagonists based on Scatchard anal., and was the only **antibody** to demonstrate agonist inhibition of [³H]DNA binding. Ki Values computed from competitive inhibition curves of [³H]DHA binding to hybridoma 1B7 resulted in a rank order of potency similar to that of β -2-adrenergic receptors: (-)-propranolol > acebutolol amine > isoproterenol > (+)-propranolol > epinephrine > norepinephrine. Hybridomas 5B7 and 5D9 exemplified a second class of **antibody**. This pair had lower antagonist binding affinities and was stereoselective in binding receptor antagonists: (-)-propranolol > (+)-propranolol > acebutolol amine. Agonist inhibition of [³H]DHA binding to these **antibodies** could only be observed at very high concns. (greater than 10⁻⁴ M agonist), and was not dose-dependent. Finally, the class of antiprenolol monoclonal **antibodies** represented by 2G9 had the lowest antagonist binding affinity of all, did not demonstrate ligand stereoselectivity, and did not recognize agonists. Apparently, **antibodies** raised against β -adrenergic receptor ligands demonstrating stereoselective agonist binding will also demonstrate high affinity antagonist binding, and they will closely parallel the binding characteristics of the receptor. According to this agonist best-fit hypothesis, anti-idiotypic **antibodies** raised against the binding site of these idiotypes might contain true mirror images of the β -adrenergic receptor binding site.

IT 1195-16-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with alprenolol and hemocyanins)

RN 1195-16-0 CAPLUS

CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX NAME)



L16 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1984:473105 CAPLUS

DOCUMENT NUMBER: 101:73105

TITLE: Immune modulator peptides

INVENTOR(S): Weigle, William Oliver; Morgan, Edward Leroy

PATENT ASSIGNEE(S): Scripps Clinic and Research Foundation, USA

SOURCE: Eur. Pat. Appl., 54 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

09/772599

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 94233	A1	19831116	EP 1983-302601	198305 09
EP 94233 R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE US 4415493	B1 A	19850828 19831115	US 1982-377223	198205 11
FI 8301496	A	19831112	FI 1983-1496	198305 02
FI 78918	B	19890630		
FI 78918	C	19891010		
ZA 8303109	A	19841224	ZA 1983-3109	198305 02
DK 8302013	A	19831112	DK 1983-2013	198305 05
AU 8314328	A1	19831117	AU 1983-14328	198305 06
AU 555896	B2	19861016		
GB 2120253	A1	19831130	GB 1983-12679	198305 09
GB 2120253 HU 30654	B2 O	19850829 19840328	HU 1983-1594	198305 09
ES 522221	A1	19850101	ES 1983-522221	198305 09
AT 15211	E	19850915	AT 1983-302601	198305 09
JP 58206545	A2	19831201	JP 1983-82458	198305 10
DD 210259	A5	19840606	DD 1983-250784	198305 10
PRIORITY APPLN. INFO.:			US 1982-377223	198205 11
			EP 1983-302601	198305 09

GI

Searcher : Shears 571-272-2528

H—Thr—Ile—Ser—Lys—Ala—Lys—Gly—Gln—
 Pro—Arg—Gln—Pro—Gln—Val—Tyr—Thr—
 Leu—Pro—Pro—Ser—Arg—Glu—Glu—OH I

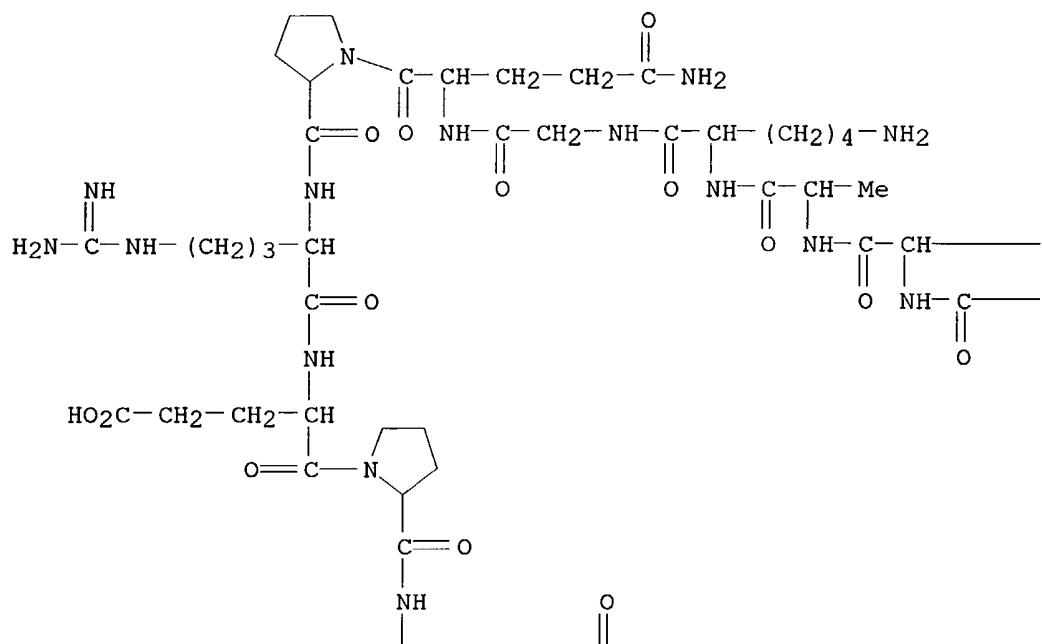
AB Peptides R-Thr-X-X1-Lys-X2-X3-X4-X5-X6-X7-X8-X9-X10-X11-X12-X13-X14-X15-Pro-X16-X17-X18-X19-(Hse)n-R1 [R = H, C1-3 alkyl; R1 = OH, NR2R3 (R2,R3 = H, C1-3 alkyl); X = Ile, Leu; X1 = Ser, Ala; X2 = Ala, Thr, Pro, Val, Ser; X3 = Lys, Arg, Thr, Gly; X4 = Gly, Val, Asn; X5 = Gln, Lys, Ser, Glu, Pro, Ala, Asn, Thr; X6 = Pro, Val, Thr, Phe; X7 = Arg, Leu, Pro, Phe; X8 = Glu, Ala, Ile, Met, Pro; X9 = Pro, Lys, Gln; X10 = Gln, Glu, Val; X11 = Val, His; X12 = Tyr, His, Leu; X13 = Thr, Val, Leu; X14 = Leu, Ile, Met, Pro; X15 = Pro, Gly; X16 = Ser, Pro; X17 = Arg, Gln, Glu, Ser; X18 = Glu, Asp, Gln, Asn; X19 = Glu, Glu, Gly, Leu; Hse = homoserine residue; n = 0, 1] were prepared as immune modulating agents. Thus, Me3CO2C-Thr(CH2Ph)-Ile-Ser(CH2Ph)-Lys(ZCl-2)-Ala-Lys(ZCl-2)-Gly-Gln-Pro-Arg(Tos)-Glu(Cyp)-Pro-Gln-Val-Tyr(CH2C6H3Cl2-2,6)-Thr(CH2Ph)-Leu-Pro-Pro-Ser(CH2Ph)-Arg(Tos)-Glu(Cyp)-Glu(Cyp)-OCH2-resin (ZCl-2 = CO2CH2C6H4Cl-2, Tos = tosyl, Cyp = cyclopentyl) was prepared by the solid-phase method and then it was cleaved by HF/anisole/EtSH to give peptide I. I at 0.025, 0.25, and 2.5 μ g/mL potentiated polyclonal **antibody** production by mouse spleen cells.

IT **91282-42-7P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, by cleavage of IgG2)

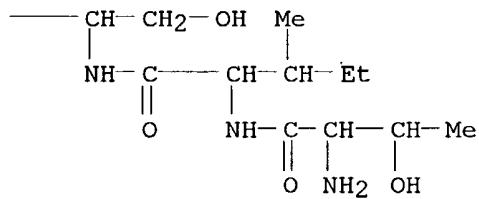
RN 91282-42-7 CAPLUS

CN L- α -Glutamine, L-threonyl-L-isoleucyl-L-seryl-L-lysyl-L-alanyl-L-lysylglycyl-L-glutaminyl-L-prolyl-L-arginyl-L- α -glutamyl-L-prolyl-L-glutaminyl-L-valyl-L-tyrosyl-L-threonyl-L-leucyl-L-prolyl-L-prolyl-L-seryl-L-arginyl-L- α -glutamyl-N-(tetrahydro-2-oxo-3-furanyl)-, (S)- (9CI) (CA INDEX NAME)

PAGE 1-A

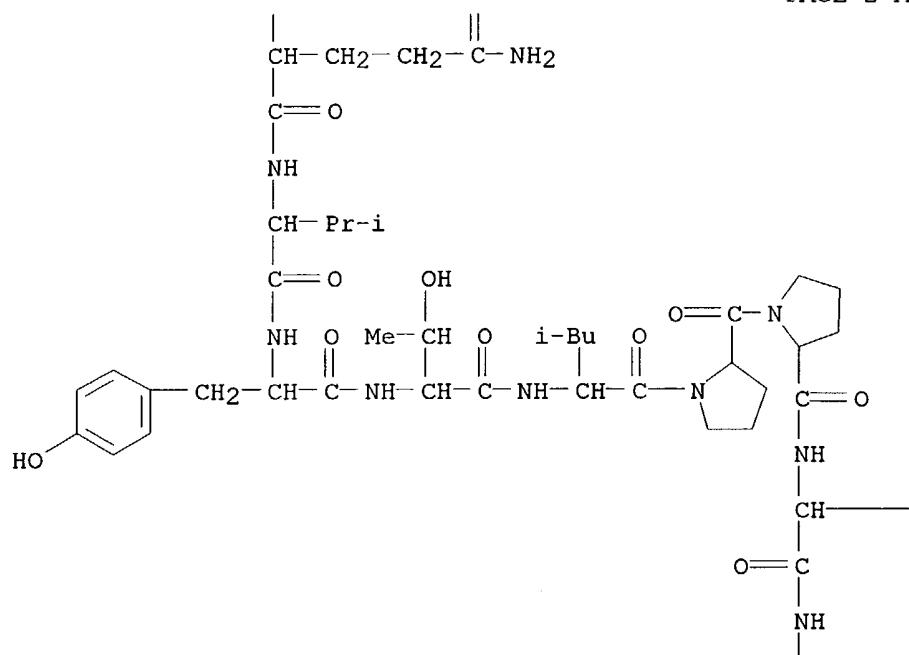


PAGE 1-B

 $-(CH_2)_4-NH_2$ 

09/772599

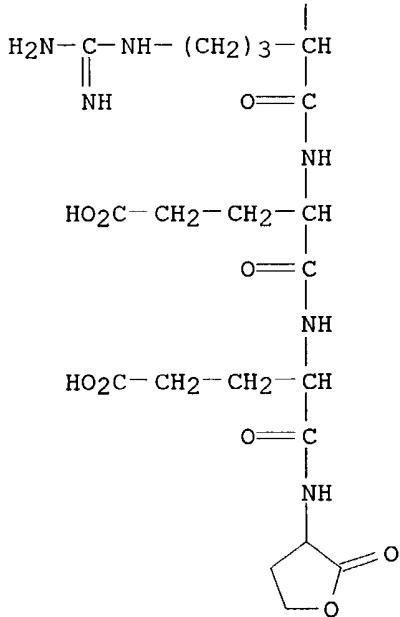
PAGE 2-A



PAGE 2-B

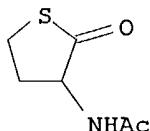
— CH₂—OH

PAGE 3-A



L16 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1982:35666 CAPLUS
DOCUMENT NUMBER: 96:35666
TITLE: Polyacrylyhydrazido-agarose: preparation via periodate oxidation and use for enzyme immobilization and affinity chromatography
AUTHOR(S): Miron, Talia; Wilchek, Meir
CORPORATE SOURCE: Dep. Biophys., Weizmann Inst. Sci., Rehovot, Israel
SOURCE: Journal of Chromatography (1981), 215, 55-63
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polyacrylyhydrazido-agarose was prepared by periodate oxidation of Sepharose followed by reaction with polyacrylyhydrazide. Enzymes, **antibodies**, lectins and small ligands were coupled to this column. High degrees of binding and activity were obtained. The bound enzymes exhibited increased stability to heat and 6 M urea compared with the unbound enzyme or the enzymes coupled to cyanogen bromide-activated agarose. **Antibodies** and lectins also maintain specificity for the appropriate antigens and glycoprotein receptors and were used effectively for purifications by affinity chromatog. Polyacrylyhydrazido-agarose provides a carrier that combines the advantages of both agarose and acrylamide.
IT 1195-16-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with polyacrylyhydrazidoagarose)
RN 1195-16-0 CAPLUS
CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX

NAME)



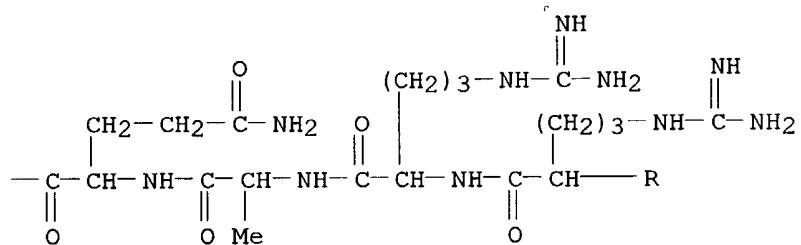
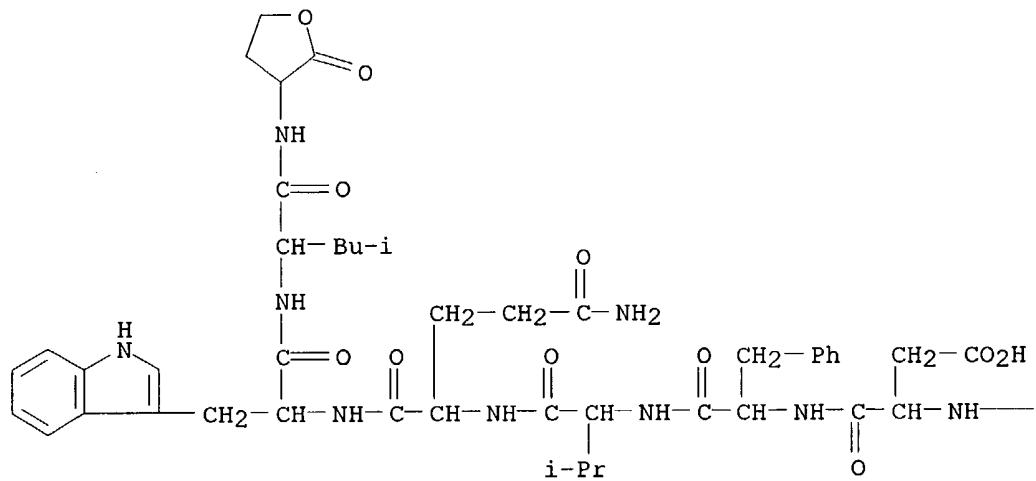
L16 ANSWER 22 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1981:422848 CAPLUS
 DOCUMENT NUMBER: 95:22848
 TITLE: Preparation of glucagon antigen
 PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56022958	A2	19810304	JP 1979-98840	197908 01
JP 60037428	B4	19850826		
JP 60149971	A2	19850807	JP 1984-165519	198408 06
JP 61014465	B4	19860418		
PRIORITY APPLN. INFO.:			JP 1979-98840	197908 01

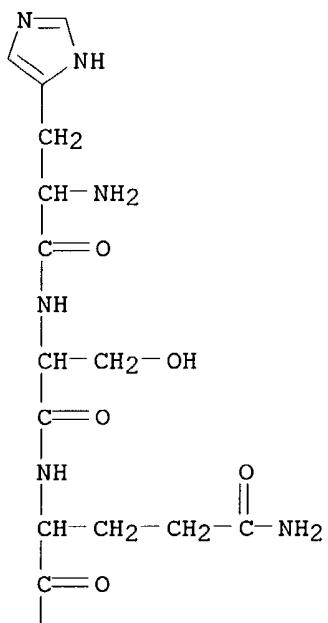
AB Pancreatic glucagon 1-26 peptide-homoserine or its analog is reacted with proteins in the presence of $\text{HOC}(\text{CH}_2)_n\text{CHO}$ ($n = 1-5$) to form an antigen which is used for the production of its **antibody** useful in immunoassay for pancreatic glucagon. Thus, pancreatic glucagon 1-26 peptide-homoserine (I) and I-lactone were obtained by treating human pancreatic glucagon (60 mg) in 5 mL of 70% formic acid with 1.43M BrCN dissolved in 1 mL of formic acid. The products were reacted with bovine serum albumin in a glutaraldehyde solution and the peptide-albumin complex thus produced was dialyzed and freeze-dried to obtain an antigen complex.

IT 55758-07-1DP, reaction products with albumin
 RL: PREP (Preparation)
 (preparation of, as antigen, immunoassay in relation to)

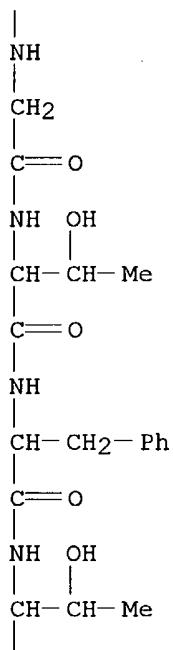
RN 55758-07-1 CAPLUS
 CN Glucagon (swine), 26-[N-(tetrahydro-2-oxo-3-furanyl)-L-leucinamide]-27-de-L-methionine-28-de-L-asparagine-29-de-L-threonine-, (S)- (9CI)
 (CA INDEX NAME)

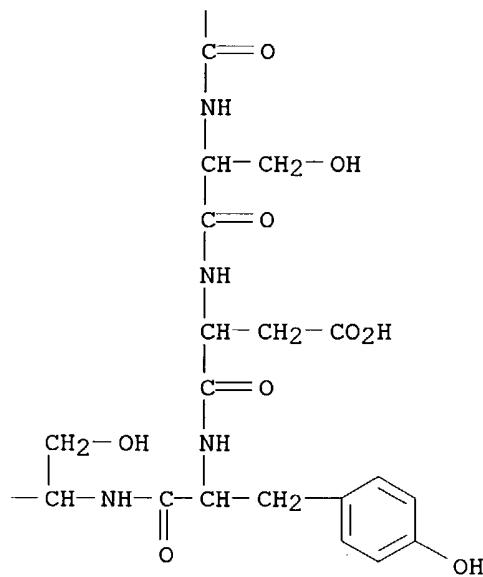
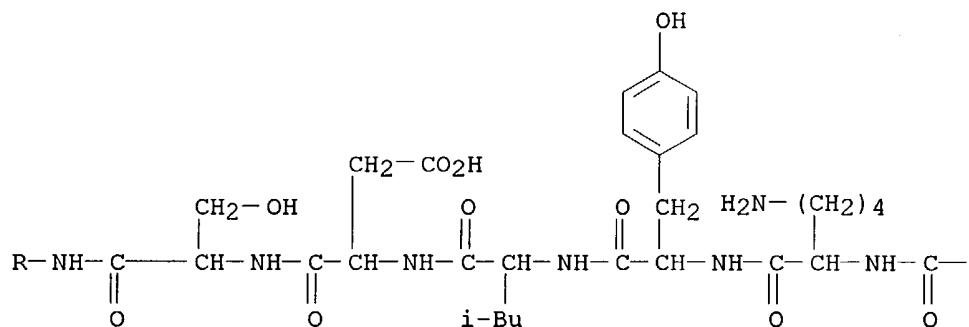


PAGE 2-B



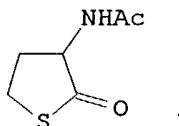
PAGE 3-B



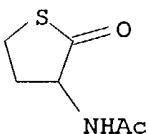


L16 ANSWER 23 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1980:543272 CAPLUS
DOCUMENT NUMBER: 93:143272
TITLE: Conjugation of triaziquinone to immunoglobulin G
by a thiolation procedure catalyzed by
2-pyridinealdehyde methiodide

AUTHOR(S): Warzynski, Michael J. S.; Cochran, Kenneth W.;
 Ackermann, W. Wilbur
 CORPORATE SOURCE: Sch. Public Health, Univ. Michigan, Ann Arbor,
 MI, 48109, USA
 SOURCE: Journal of Immunological Methods (1980),
 35(1-2), 157-68
 CODEN: JIMMBG; ISSN: 0022-1759
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



AB Thiolation of IgG with DL-N-acetylhomocysteinethiolactone [17896-21-8], catalyzed by 2-pyridinealdoxime methiodide, incorporated new S groups into IgG. Triaziquinone (I) was subsequently conjugated to the S groups. Triaziquinone-IgG complex retained the alkylating activity of the drug and the immunol. activity of the antibody. The conjugation procedure was inhibited by the thiol-blocking agent methyl methanethiosulfonate.
 IT 1195-16-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (thiolation by, of IgG)
 RN 1195-16-0 CAPLUS
 CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX NAME)



L16 ANSWER 24 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1978:70967 CAPLUS
 DOCUMENT NUMBER: 88:70967
 TITLE: Immobilized lipoamide dehydrogenase. 3.
 Preparation and properties of an immobilized polythiolated enzyme
 AUTHOR(S): Lowe, Christopher R.
 CORPORATE SOURCE: Dep. Physiol. Biochem., Univ. Southampton,
 Southampton, UK
 SOURCE: European Journal of Biochemistry (1977), 76(2),
 411-17
 CODEN: EJBCAI; ISSN: 0014-2956
 DOCUMENT TYPE: Journal

LANGUAGE: English

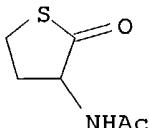
AB Pig heart lipoamide dehydrogenase (I) was polythiolated with N-acetylhomocysteine thiolactone, introducing 5-6 mol addnl. SH groups/mol FAD. Free polythiolated I has a 50-60% lower sp. activity, a reduced affinity for specific **antibody**, but an unchanged apparent Km. Free polythiolated I containing 6 mol SH/mol FAD and 7 mol SH/mol FAD were 270% and 640%, resp., more stable thermally than free native I. Immobilization of polythiolated I to thiolated 6-aminohexyl-Sepharose reduced sp. activity to <10% of that of free native I, raised the apparent Km, and lowered affinity for specific **antibody**. Thermal stability was enhanced by ≤25-fold. Immobilization of polythiolated I to a short spacer group, L-cysteiny-Sepharose, reduced sp. activity but enhanced thermal stability and stability in aqueous dioxane by 800% and 770%, resp., relative to free native I. These data are discussed in terms of the effects of proximity to the matrix backbone. The marked improvement in stability of polythiolated I was matched by that of I immobilized directly to CNBr-activated Sepharose. However, in this case, the sp. activity of the immobilized I was 300-350% less than that of the polythiolated I. These data are discussed in terms of multiple attachment of I to the matrix and the possibility of SS crosslinks in polythiolated I.

IT 1195-16-0

RL: BIOL (Biological study)
(lipoamide dehydrogenase polythiolation by, effect on enzyme immobilization)

RN 1195-16-0 CAPLUS

CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX NAME)



L16 ANSWER 25 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1977:462791 CAPLUS

DOCUMENT NUMBER: 87:62791

TITLE: **Antibody** reactivity in penicillin-sensitive patients determined with different penicillin derivatives

AUTHOR(S): Juhlin, L.; Ahlstedt, S.; Andal, L.; Ekstrom, B.; Svard, P. O.; Wide, L.

CORPORATE SOURCE: Dep. Dermatol., Univ. Hosp., Uppsala, Swed.

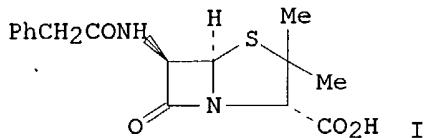
SOURCE: International Archives of Allergy and Applied Immunology (1977), 54(1), 19-28

CODEN: IAAAAM; ISSN: 0020-5915

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Thirty-five individuals showing reactions of anaphylactic shock, angio-edema or urticaria to penicillin were investigated. Their skin sensitivity was analyzed using 16 different penicillin derivs. In addition, the content of circulating reagins against the penicilloyl structure in the patient's sera were analyzed using Radioallergosorbent test (RAST). Seventeen of the patients had neg. skin reactions and RAST results to all substances tested. The other 18 were skin test-pos. to at least 1 derivative but showed markedly heterogeneous patterns of skin reactivity. Fourteen had pos. reactions against penicilloyl structures accompanied by antipenicilloyl reagins. Four patients showed doubtful reactions only to penicillin or penicilloate and/or penilloate. These patients also had very low levels of reagins against penicilloyl in their sera. Pos. skin test results using monovalent benzyl penicillin (I) [61-33-6] derivs., which cannot form a multivalent antigen with penicillyol specificity, indicated formation of other derivs. of importance in penicillin allergy, e.g., penicillamine protein conjugates. Three patients showed skin reactions to ampicillin polymer and 2 to benzyl-penicillin polymer. The skin tests performed with the penicillin derivs. used do not seem to give more information on the sensitivity of the patients than does the RAST using penicilloyl structures.

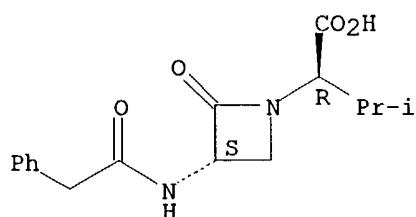
IT **63493-14-1P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of and in allergy to penicillin detection)

RN 63493-14-1 CAPLUS

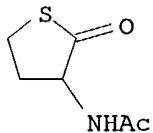
CN 1-Azetidineacetic acid, α -(1-methylethyl)-2-oxo-3-[(phenylacetyl)amino]-, monosodium salt, [R-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



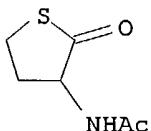
● Na

L16 ANSWER 26 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1973:41213 CAPLUS
 DOCUMENT NUMBER: 78:41213
 TITLE: Mechanism of allergic reactions
 AUTHOR(S): Ljaljevic, Jasmina; Ljaljevic, M.
 CORPORATE SOURCE: Med. Fac., Beograd Univ., Belgrade, Yugoslavia
 SOURCE: Glas - Srpska Akademija Nauka i Umetnosti,
 Odeljenje Medicinskih Nauka (1971), 24, 137-43
 CODEN: SUGMAW; ISSN: 0371-4039
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: Serbian
 AB A review with special emphasis on the activity of reagins. This activity can be suppressed with N-acetylhomocysteine thiolactone.
 IT 1195-16-0
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (immunosuppressant activity of)
 RN 1195-16-0 CAPLUS
 CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX NAME)

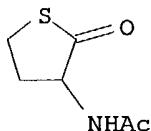


L16 ANSWER 27 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1965:69113 CAPLUS
 DOCUMENT NUMBER: 62:69113
 ORIGINAL REFERENCE NO.: 62:12310a-b
 TITLE: Labeling of thiolated antibody with mercury for electron microscopy
 AUTHOR(S): Kendall, P. A.
 CORPORATE SOURCE: Univ., Cambridge, UK
 SOURCE: Biochimica et Biophysica Acta (1965), 97(1), 174-6
 CODEN: BBACAQ; ISSN: 0006-3002
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A new procedure is described for labeling with Hg in which a monofunctional thiol-specific mercurial is applied to antibody after a large proportion of the protein amino groups have been thiolated using N-acetylhomocysteine thiolactone. The immunospecific activity of the modified antibody resides in the labeled mols. The observed loss of up to 50% of inhibiting activity occasioned by the treatment reflects a decrease in affinity of an antibody for a viral antigen. Monofunctional thiol-specific mercurials can yield visible electron staining when applied directly to cells, where the distribution of available thiol is likely to be considerably less dense than in the

thiolated antibody.
 IT 1195-16-0, Butyric acid, 2-acetamido-4-mercaptopo-,
 γ-(thio lactone)
 (reaction with antibodies for Hg tagging)
 RN 1195-16-0 CAPLUS
 CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX
 NAME)



L16 ANSWER 28 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1960:68714 CAPLUS
 DOCUMENT NUMBER: 54:68714
 ORIGINAL REFERENCE NO.: 54:13239b-c
 TITLE: A general method for the isolation of
 antibodies
 AUTHOR(S): Singer, S. J.; Fothergill, John E.; Shainoff,
 John R.
 CORPORATE SOURCE: Yale Univ.
 SOURCE: Journal of the American Chemical Society (1960),
 82, 565-71
 CODEN: JACSAT; ISSN: 0002-7863
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 AB The protein antigen is reacted with N-acetylhomocysteine
 thiolactone. This thiolated antigen is used to precipitate the specific
 antibody which is then dissolved in a glycine-H₂SO₄ buffer
 at pH 2.4. 3,6-Bis(acetoxymercurimethyl)dioxane is added which
 ppts. the thiolated antigen leaving the antibody in solution
 Antibodies to 3 protein antigens, bovine serum albumin,
 ovalbumin, and ribonuclease were isolated and shown to be active and
 at least 98% pure.
 IT 1195-16-0, Butyric acid, 2-acetamido-4-mercaptopo-,
 γ-(thio lactone)
 (reaction with protein antigen in antibody preparation)
 RN 1195-16-0 CAPLUS
 CN Acetamide, N-(tetrahydro-2-oxo-3-thienyl)- (8CI, 9CI) (CA INDEX
 NAME)



FILE 'REGISTRY' ENTERED AT 10:25:43 ON 03 AUG 2004
 L17 19 SEA FILE=REGISTRY ABB=ON PLU=ON (1195-16-0/BI OR

09/772599

116175-79-2/BI OR 121749-63-1/BI OR 143537-62-6/BI OR
153937-33-8/BI OR 160009-80-3/BI OR 160009-81-4/BI OR
160080-58-0/BI OR 174471-30-8/BI OR 183279-68-7/BI OR
183279-69-8/BI OR 183279-70-1/BI OR 183279-71-2/BI OR
183279-72-3/BI OR 183279-74-5/BI OR 55758-07-1/BI OR
63493-14-1/BI OR 75364-47-5/BI OR 91282-42-7/BI)

'FILE 'CAOLD' ENTERED AT 10:26:02 ON 03 AUG 2004

L18 21 S L17

L18 ANSWER 1 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
AN CA63:16761e CAOLD
TI stain for protein
AU Kendall, P. A.; Barnard, E. A.
IT 288-32-4 1195-16-0

L18 ANSWER 2 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
AN CA63:13688e CAOLD
TI estimation of thiol esters
AU Cecil, R.; Ferdinand, W.
IT 928-47-2 1190-93-8 1195-16-0

L18 ANSWER 3 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
AN CA62:14822c CAOLD
TI N-acetyl-DL-homocysteine thiolactone
AU Ogino, Shigeo; Yasui, K.
PA Sumitomo Chemical Co., Ltd.
DT Patent
TI vasopressin, derivative of
PA SPOFA United Pharmaceutical Works
DT Patent
PATENT NO. KIND DATE
----- -----
PI JP 65001376 1965
IT 1195-16-0

L18 ANSWER 4 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
AN CA62:12310a CAOLD
TI labeling of thiolated antibody with Hg for electron microscopy
AU Kendall, P. A.
IT 1195-16-0

L18 ANSWER 5 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
AN CA62:4301b CAOLD
TI paramagnetic electron spin resonance investigation of the action of
radiation-protection substances in model systems
AU Schroeder, Ellinor; Thom, H. G.
IT 56-10-0 1195-16-0

L18 ANSWER 6 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
AN CA55:22546e CAOLD
TI detoxifying function of stored Fe - (II) detoxification of tetanus
toxin by hemosiderin and reducing substances
AU Heilmeyer, Ludwig; Woehler, F.
IT 1195-16-0

L18 ANSWER 7 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA55:12579g CAOLD
 TI metabolic role of transaminase in the nervous system
 AU Bonavita, Vincenzo
 IT **1195-16-0**

L18 ANSWER 8 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA55:7167b CAOLD
 TI effect of structure of some mercaptans on their amperometric titration with AgNO₃
 AU Aibara, K.; Herreid, E. O.; Wilson, H. K.
 IT 758-08-7 **1195-16-0** 2485-62-3 3622-59-1 7728-98-5
 90580-84-0

L18 ANSWER 9 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA55:914i CAOLD
 TI stable cysteine solns.
 PA Nordmark-Werke G.m.b.H.
 DT Patent
 PATENT NO. KIND DATE

PI GB 838753
 DE 1058214
 IT **1195-16-0**

L18 ANSWER 10 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA54:23834c CAOLD
 TI endo-exo isomerism of compds. of the bicyclo[2.2.1]heptane system-infrared spectra of 2-methyldehydronorborneols and 2-methylnorborneols
 AU Toivonen, N. J.; Malkonen, P. J.
 IT **1195-16-0** 5240-73-3 60585-83-3 100378-72-1

L18 ANSWER 11 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA54:23061g CAOLD
 TI action of a combination of l-cysteine, δ -l-homocysteine thiolactone, and fructose on the fatty liver
 AU Petzold, Hans
 IT **1195-16-0**

L18 ANSWER 12 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA54:13566a CAOLD
 TI skin and hair lotions
 AU Schwarze, Werner
 PA Deutsche Gold- und Silber-Scheideanstalt vorm. Roessler
 DT Patent
 PATENT NO. KIND DATE

PI DE 1023561
 IT **1195-16-0**

L18 ANSWER 13 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA54:13239b CAOLD
 TI isolation of antibodies
 AU Singer, S. J.; Fothergill, J. E.; Shainoff, J. R.
 TI separation of plasma fatty acids

AU Takahashi, Yoshiyata; Tanaka, K.
 IT **1195-16-0** 51023-77-9

L18 ANSWER 14 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA53:21696e CAOLD
 TI introduction of new SH groups and disulfide bonds into proteins
 AU Benesch, Reinhold; Benesch, R. E.
 IT **1195-16-0**

L18 ANSWER 15 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA53:17325d CAOLD
 TI comparison of several sulphydryl compds. in radiation protection in
 degree of effectiveness and time dependence
 AU Braun, Walter; Kirnberger, E. J.; Stille, G.; Wolf, V.
 IT 1190-74-5 **1195-16-0** 10593-85-8 37819-52-6

L18 ANSWER 16 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA53:16982i CAOLD
 TI N-acetyl-DL-homocysteine thiolactone-reagent for acylation of
 proteins and peptides
 AU Abadi, Djahanguir M.
 IT **1195-16-0** 13589-08-7 26416-38-6

L18 ANSWER 17 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA53:11260g CAOLD
 TI thiolation of proteins
 AU Benesch, Reinhold; Benesch, R. E.
 IT **1195-16-0** 118767-15-0

L18 ANSWER 18 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA52:19470a CAOLD
 TI electron-spin resonance of radiation damage to peptides
 AU McCormick, Carroll G.; Gordy, W.
 IT 65-82-7 96-81-1 97-69-8 543-24-8 554-94-9
 556-33-2 637-84-3 688-12-0 691-80-5 923-38-6 1187-50-4
 1188-37-0 **1195-16-0** 2018-61-3 2189-27-7 3054-47-5
 6491-57-2 6491-59-4 6491-64-1 15474-96-1 19246-18-5
 19257-04-6 31796-57-3 39537-36-5 89921-48-2 90243-88-2
 98672-82-3 99146-59-5 99265-26-6 104010-46-0

L18 ANSWER 19 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA52:18841i CAOLD
 TI biol. radiation protection - (XXIII) homocysteine thiolactone as
 radiation protector
 AU Langendorff, Margarete; Koch, R.
 IT **1195-16-0**

L18 ANSWER 20 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA52:10421i CAOLD
 TI relations between liver protection and sugar metabolism
 AU Kirnberger, Ernst J.; Braun, W.; Stille, G.; Wolf, V.
 IT **1195-16-0** 10593-85-8

L18 ANSWER 21 OF 21 CAOLD COPYRIGHT 2004 ACS on STN
 AN CA52:5665d CAOLD
 TI action of adenosine - (III)

AU Gomahr, Heribert
 TI oral and parenteral protection against irradiation by thiolactones
 AU Braun, Walter; Stille, G.; Wolf, V.
 IT 1195-16-0 10593-85-8

FILE 'USPATFULL' ENTERED AT 10:26:24 ON 03 AUG 2004
 L19 46 S L17
 L20 29 S L19 NOT (PY=>1998 OR PY=>19980416)
 L21 16 S L20 AND ANTIBOD?

L21 ANSWER 1 OF 16 USPATFULL on STN
 ACCESSION NUMBER: 97:78511 USPATFULL
 TITLE: End-attachment of oligonucleotides to
 polyacrylamide solid supports for capture and
 detection of nucleic acids
 INVENTOR(S): Ghosh, Soumitra Shanker, San Diego, CA, United
 States
 Fahy, Eoin D., San Diego, CA, United States
 PATENT ASSIGNEE(S): Siska Diagnostics, Inc., La Jolla, CA, United
 States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5663242		19970902
APPLICATION INFO.:	US 1995-414019		19950331 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-102474, filed on 5 Aug 1993, now patented, Pat. No. US 5478893 which is a continuation-in-part of Ser. No. US 1989-293893, filed on 5 Jan 1989, now patented, Pat. No. US 5237016		

DOCUMENT TYPE: Utility
 FILE SEGMENT: Granted
 PRIMARY EXAMINER: Jones, W. Gary
 ASSISTANT EXAMINER: Rees, Dianne
 LEGAL REPRESENTATIVE: Stephanie Seidman Brown Martin Haller & McClain
 NUMBER OF CLAIMS: 32
 EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 6 Drawing Figure(s); 6 Drawing Page(s)
 LINE COUNT: 2283

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods for covalent attachment of oligonucleotides to solid
 supports such that substantially all of the oligonucleotides are
 attached via their 5'-ends are provided. The solid supports with
 attached oligonucleotides are produced. Thiol-oligonucleotides are
 attached to bromoacetyl-derivatized polyacrylamide supports, or
 conversely, bromoacetyl-oligonucleotides are immobilized on
 thiol-polyacrylamide supports. In a further aspect,
 bromoacetyl-derivatized oligonucleotides, and polyacrylamide
 supports with linked oligonucleotides produced by coupling
 bromoacetyl-derivatized oligonucleotides with thiol-derivatized
 polyacrylamide solid supports or by coupling thiol-derivatized
 oligonucleotides with bromoacetyl-derivatized polyacrylamide
 supports as well as methods for capture of nucleic acids by
 oligonucleotides attached to polyacrylamide solid supports, either
 by direct capture or in sandwich hybridization formats are
 provided.

09/772599

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 2 OF 16 USPATFULL on STN
ACCESSION NUMBER: 97:70701 USPATFULL
TITLE: Ligands useful in radiographic imaging
INVENTOR(S): Rajagopalan, Raghavan, Maryland Heights, MO,
United States
Srinivasan, Ananthachari, St. Charles, MO, United
States
Vanderheyden, Jean-Luc, St. Louis, MO, United
States
PATENT ASSIGNEE(S): Mallinckrodt Medical, Inc., St. Louis, MO, United
States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5656253		19970812
APPLICATION INFO.:	US 1994-255148		19940607 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-13527, filed on 4 Feb 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-831724, filed on 5 Feb 1992, now patented, Pat. No. US 5382654 Ser. No. Ser. No. US 1992-842017, filed on 25 Feb 1992, now abandoned And Ser. No. US 1994-183270, filed on 19 Jan 1994, now abandoned which is a continuation of Ser. No. US 1990-584317, filed on 14 Sep 1990, now abandoned		

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wu, Shean C.
LEGAL REPRESENTATIVE: Guffey, Wendell Ray, McBride, Thomas P.
NUMBER OF CLAIMS: 1
EXEMPLARY CLAIM: 1
LINE COUNT: 878

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates particularly to novel pyridine based nitrogen-sulfur ligands that are suitable for complexing with a radionuclide, and are useful as general imaging agents for diagnostic purposes, novel aminothiol ligands that are suitable for complexing with a radionuclide, and are useful as general imaging agents for diagnostic purposes, and amide-thiolate ligands having improved metal chelate formation kinetics. The amide-thiolate ligands include an amine which converts to a vinylogous amide upon complexation, thereby providing rapid complexation and thermodynamic stability. The ligands may be used for post formed labeling of biological substances for use in the fields of diagnosis and therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 3 OF 16 USPATFULL on STN
ACCESSION NUMBER: 95:114807 USPATFULL
TITLE: End-attachment of oligonucleotides to polyacrylamide solid supports for capture and detection of nucleic acids

Searcher : Shears 571-272-2528

09/772599

INVENTOR(S): Ghosh, Soumitra S., San Diego, CA, United States
PATENT ASSIGNEE(S): Fahy, Eoin D., San Diego, CA, United States
Siska Diagnostics Inc., La Jolla, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5478893		19951226
APPLICATION INFO.:	US 1993-102474		19930805 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1989-293893, filed on 5 Jan 1989, now patented, Pat. No. US 5237016		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Fleisher, Mindy B.		
ASSISTANT EXAMINER:	Vogel, Nancy T.		
LEGAL REPRESENTATIVE:	Seidman, Stephanie L. Brown Martin Haller & McClain		
NUMBER OF CLAIMS:	22		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	2267		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods for covalent attachment of oligonucleotides to solid supports such that substantially all of the oligonucleotides are attached via their 5'-ends are provided. The solid supports with attached oligonucleotides are produced. Thiol-oligonucleotides are attached to bromoacetyl-derivatized polyacrylamide supports, or conversely, bromoacetyl-oligonucleotides are immobilized on thiol-polyacrylamide supports. In a further aspect, bromoacetyl-derivatized oligonucleotides, and polyacrylamide supports with linked oligonucleotides produced by coupling bromoacetyl-derivatized oligonucleotides with thiol-derivatized polyacrylamide solid supports or by coupling thiol-derivatized oligonucleotides with bromoacetyl-derivatized polyacrylamide supports as well as methods for capture of nucleic acids by oligonucleotides attached to polyacrylamide solid supports, either by direct capture or in sandwich hybridization formats are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 4 OF 16 USPATFULL on STN
ACCESSION NUMBER: 95:41021 USPATFULL
TITLE: Barbiturate derivatives and protein and polypeptide barbiturate derivative conjugates and labels
INVENTOR(S): Buechler, Kenneth F., San Diego, CA, United States
PATENT ASSIGNEE(S): Biosite Diagnostics, Inc., San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5414085		19950509
APPLICATION INFO.:	US 1992-864110		19920406 (7)

Searcher : Shears 571-272-2528

09/772599

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Raymond, Richard L.
LEGAL REPRESENTATIVE: Lyon & Lyon
NUMBER OF CLAIMS: 2
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 430

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to novel barbiturate derivatives which are synthesized for the covalent attachment to antigens (proteins or polypeptides) for the preparation of **antibodies** or receptors to the barbiturate metabolites. The resulting novel antigens may be used for the production of **antibodies** or receptors using standard methods. Once generated, the **antibodies** or receptors and the novel derivatives which are covalently attached to proteins, polypeptides or labels may be used in the immunoassay process.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 5 OF 16 USPATFULL on STN
ACCESSION NUMBER: 94:106894 USPATFULL
TITLE: Protein-dimeric polysaccharide conjugate vaccine
INVENTOR(S): Marburg, Stephen, Metuchen, NJ, United States
Tolman, Richard L., Warren, NJ, United States
PATENT ASSIGNEE(S): Merck & Co., Inc., Rahway, NJ, United States
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5371197		19941206
APPLICATION INFO.:	US 1991-766242		19910924 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Kim, Kay K. A.		
LEGAL REPRESENTATIVE:	Pfeiffer, Hesna J., Parr, Richard J., Bencen, Gerard H.		
NUMBER OF CLAIMS:	7		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1687		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A conjugate immunogen, having polysaccharide moieties derived from bacterial sources, provides a multivalent vaccine with a low protein to polysaccharide ratio. The vaccine reduces complications associated with injection of protein immunogens due to pyrogenic responses, such as swelling and pain, and is particularly suitable for administration to infants.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 6 OF 16 USPATFULL on STN
ACCESSION NUMBER: 94:77838 USPATFULL
TITLE: Fluoroketone enzyme inhibitors
INVENTOR(S): Mize, Patrick D., Durham, NC, United States
O'Connell, James P., Chapel Hill, NC, United

Searcher : Shears 571-272-2528

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PATENT ASSIGNEE(S): States
Becton, Dickinson and Company, Franklin Lakes,
NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5344952		19940906
APPLICATION INFO.:	US 1993-34959		19930322 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1988-282816, filed on 12 Dec 1988, now abandoned which is a division of Ser. No. US 1986-932951, filed on 20 Nov 1986, now patented, Pat. No. US 4835099		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Ramsuer, Robert W.		
ASSISTANT EXAMINER:	Ambrose, Michael G.		
LEGAL REPRESENTATIVE:	Brown, Richard E.		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	907		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for enzyme immunoassay for a ligand suspected to be present in a liquid sample includes signal amplification by use of at least two enzymes and a blocked modulator for one of the enzymes. Ligand present in the liquid binds to an antiligand and an enzyme-labeled tracer. The resulting bound fraction is separated and the enzyme in the tracer removes the blocking group from the blocked modulator. The modulator activates or inhibits a second enzyme which catalyzes the conversion of a substrate to a product. The presence or absence of the ligand in the liquid is indicated by a signal, such as a color change or a rate of color change, associated with the product. The invention includes a new class of enzyme inhibitors and blocked inhibitors and a kit of materials useful for performing the method of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 7 OF 16 USPATFULL on STN
ACCESSION NUMBER: 94:39855 USPATFULL
TITLE: Ligands for improving metal chelate formation kinetics
INVENTOR(S): Srinivasan, Ananthachari, St. Charles, MO, United States
PATENT ASSIGNEE(S): Mallinckrodt Medical, Inc., St. Louis, MO, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5310536		19940510
APPLICATION INFO.:	US 1992-832149		19920206 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Stoll, Robert L.		
ASSISTANT EXAMINER:	Covert, John M.		
LEGAL REPRESENTATIVE:	Stierwalt, Brian K.		

Searcher : Shears 571-272-2528

NUMBER OF CLAIMS: 8
 EXEMPLARY CLAIM: 7
 LINE COUNT: 432

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Amide-thiolate ligands having improved metal chelate formation kinetics are disclosed. The ligands include a tertiary amine strategically located to facilitate rapid formation of an amine-amide-thiolate intermediate complex, followed by transfer of the metal to a thermodynamically stable amide-thiolate complex. The amide-thiolate ligands of the present invention may be used for post formed labeling of biological substances for use in the fields of diagnosis and therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 8 OF 16 USPATFULL on STN
 ACCESSION NUMBER: 93:67717 USPATFULL
 TITLE: End-attachment of oligonucleotides to polyacrylamide solid supports for capture and detection of nucleic acids
 INVENTOR(S): Ghosh, Soumitra S., San Diego, CA, United States
 Fahy, Eoin D., La Jolla, CA, United States
 PATENT ASSIGNEE(S): Siska Diagnostics, Inc., San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5237016		19930817
APPLICATION INFO.:	US 1989-293893		19890105 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Brown, Johnnie R.		
ASSISTANT EXAMINER:	Kunz, Gary L.		
LEGAL REPRESENTATIVE:	Fitch, Even, Tabin & Flannery		
NUMBER OF CLAIMS:	5		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	1385		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention concerns methods and means for covalent attachment of oligonucleotides to solid supports substantially at their 5'-ends. According to the invention thiol-oligonucleotides are attached to bromoacetyl-derivatized polyacrylamide supports, or conversely, bromoacetyl-oligonucleotides are immobilized on thiol-polyacrylamide supports.

In a further aspect, this invention relates to bromoacetyl-oligonucleotides that may be immobilized on thiol-polyacrylamide solid supports, thiol-oligonucleotides immobilized on bromoacetyl-derivatized polyacrylamide supports as well as to methods for capture of nucleic acids by oligonucleotides attached to polyacrylamide solid supports, either by direct capture or in sandwich hybridization formats.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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L21 ANSWER 9 OF 16 USPATFULL on STN
ACCESSION NUMBER: 92:76760 USPATFULL
TITLE: Immunoassay for the detection of
α-haloacetamides
INVENTOR(S): Feng, Paul, Babler, MO, United States
Wratten, Stephen J., Maryland Heights, MO, United
States
Winzenburger, Peggy A., High Ridge, MO, United
States
Gross, Cindy J., St. Louis, MO, United States
Flaherty, Dennis K., Ballwin, MO, United States
PATENT ASSIGNEE(S): Monsanto Company, St. Louis, MO, United States
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5147786		19920915
APPLICATION INFO.:	US 1990-619560		19901129 (7)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1988-184854, filed on 22 Apr 1988, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Ceperley, Mary E.		
LEGAL REPRESENTATIVE:	Andress, William I.		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1075		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	The disclosure herein relates to antigens, antibodies , antisera and diagnostic assay kits used in an enzyme-linked immunosorbent assay (ELISA) for α-haloacetamide herbicides.		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 10 OF 16 USPATFULL on STN
ACCESSION NUMBER: 90:71897 USPATFULL
TITLE: Novel spergualin-related compounds and process
for producing the same
INVENTOR(S): Takeuchi, Tomio, Tokyo, Japan
Saino, Tetsushi, Yono, Japan
Yoshida, Masao, Hastings-on-Hudson, NY, United
States
Takahashi, Katsutoshi, Tokyo, Japan
Nakamura, Teruya, Kusatsu, Japan
Umezawa, deceased, Hamao, late of Tokyo, United
States by Mieko Umezawa, Kazuo Umezawa, Yoji
Umezawa, administrators
PATENT ASSIGNEE(S): Zaidan Hojin Biseibutsu Kagaku Kenkyu Kai, Tokyo,
Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4956504		19900911
APPLICATION INFO.:	US 1987-32811		19870401 (7)

NUMBER	DATE
Searcher : Shears	571-272-2528

 PRIORITY INFORMATION: JP 1986-77747 19860404
 DOCUMENT TYPE: Utility
 FILE SEGMENT: Granted
 PRIMARY EXAMINER: Elmore, Carolyn S.
 LEGAL REPRESENTATIVE: Banner, Birch, McKie & Beckett
 NUMBER OF CLAIMS: 10
 EXEMPLARY CLAIM: 1,5
 LINE COUNT: 1261

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to novel Spergualin-related compounds represented by the general formula [I] ##STR1## (wherein X is ##STR2## R is --H or --CH₂OH; R₁ is --H, ##STR3## R₂ is a residue obtained by removing, from an amino acid or peptide, the hydroxyl group of the carboxyl group and, when R₁ is a group other than --H, R₂ is same as R₁), or a pharmacologically acceptable salt thereof. Said compounds or salts thereof have an immuno-modulating action.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 11 OF 16 USPATFULL on STN
 ACCESSION NUMBER: 89:94157 USPATFULL
 TITLE: Covalently-modified bacterial polysaccharides, stable covalent conjugates of such polysaccharides and immunogenic proteins with bigeneric spacers and methods of preparing such polysaccharides and conjugates and of confirming covalency
 INVENTOR(S): Marburg, Stephen, Metuchen, NJ, United States
 Kniskern, Peter J., Lansdale, PA, United States
 Tolman, Richard L., Warren, NJ, United States
 PATENT ASSIGNEE(S): Merck & Co., Inc., Rahway, NJ, United States
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4882317		19891121
APPLICATION INFO.:	US 1987-63607		19870618 (7)
RELATED APPLN. INFO.:	Division of Ser. No. US 1985-719678, filed on 4 Apr 1985, now patented, Pat. No. US 4695624, issued on 22 Sep 1987 which is a continuation-in-part of Ser. No. US 1984-608738, filed on 10 May 1984, now abandoned		

DOCUMENT TYPE: Utility
 FILE SEGMENT: Granted
 PRIMARY EXAMINER: Griffin, Ronald W.
 LEGAL REPRESENTATIVE: Parr, Richard S., Pfeiffer, Hesna J., Tribble, Jack L.
 NUMBER OF CLAIMS: 17
 EXEMPLARY CLAIM: 1,4
 LINE COUNT: 1815

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Covalently modified bacterial polysaccharides and proteins; covalent conjugates of such polysaccharides linked by a bigeneric spacer, which permits proof of covalency and facilitates

purification of conjugated materials, with immunogenic bacterial membrane or other proteins, which conjugates are useful components of bacterial vaccines; and methods of preparing such polysaccharides, proteins and conjugates and of confirming the covalency of the linkage between polysaccharides and proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 12 OF 16 USPATFULL on STN
 ACCESSION NUMBER: 89:43263 USPATFULL
 TITLE: Signal enhancement in immunoassay by modulation of enzymatic catalysis
 INVENTOR(S): Mize, Patrick D., Durham, NC, United States
 O'Connell, James P., Chapel Hill, NC, United States
 PATENT ASSIGNEE(S): Becton, Dickinson and Company, Franklin Lakes, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4835099		19890530
APPLICATION INFO.:	US 1986-932951		19861120 (6)
DOCUMENT TYPE:		Utility	
FILE SEGMENT:		Granted	
PRIMARY EXAMINER:	Kepplinger, Esther M.		
ASSISTANT EXAMINER:	Hoffer, Florina B.		
LEGAL REPRESENTATIVE:	Brown, Richard E.		
NUMBER OF CLAIMS:	32		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	1031		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for enzyme immunoassay for a ligand suspected to be present in a liquid sample includes signal amplification by use of at least two hydrolases and a blocked fluoroketone for one of the hydrolases. Ligand present in the liquid binds to an antiligand and a hydrolase-labeled tracer. The resulting bound fraction is separated and the hydrolase in the tracer removes the blocking group from the blocked fluoroketone. The fluoroketone activates or inhibits a second hydrolase which catalyzes the conversion of a substrate to a product. The presence or absence of the ligand in the liquid is indicated by a signal, such as a color change or a rate of color change, associated with the product. The invention includes a new class of hydrolase inhibitors and blocked fluoroketones and a kit of materials useful for performing the method of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 13 OF 16 USPATFULL on STN
 ACCESSION NUMBER: 87:67032 USPATFULL
 TITLE: Covalently-modified polyanionic bacterial polysaccharides, stable covalent conjugates of such polysaccharides and immunogenic proteins with bigeneric spacers, and methods of preparing such polysaccharides and conjugates and of

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INVENTOR(S): confirming covalency
Marburg, Stephen, Metuchen, NJ, United States
Tolman, Richard L., Warren, NJ, United States
Kniskern, Peter J., Lansdale, PA, United States
PATENT ASSIGNEE(S): Merck & Co., Inc., Rahway, NJ, United States
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4695624		19870922
APPLICATION INFO.:	US 1985-719678		19850404 (6)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1984-608738, filed on 10 May 1984, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Kight, John		
ASSISTANT EXAMINER:	Draper, Garnette D.		
LEGAL REPRESENTATIVE:	Elder, Richard A., Pfeiffer, Hesna J., Levitt, Julian S.		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1848		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Covalently modified bacterial polysaccharides and proteins; covalent conjugates of such polysaccharides linked by a bigeneric spacer, which permits proof of covalency and facilitates purification of conjugated materials, with immunogenic bacterial membrane or other proteins, which conjugates are useful components of bacterial vaccines; and methods of preparing such polysaccharides, proteins and conjugates and of confirming the covalency of the linkage between polysaccharides and proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 14 OF 16 USPATFULL on STN
ACCESSION NUMBER: 86:34228 USPATFULL
TITLE: Thiolated polypeptide compound derived from a tetanus toxin fragment, the process for obtaining and its application
INVENTOR(S): Bizzini, Bernard, Paris, France
PATENT ASSIGNEE(S): Institut Pasteur, Paris, France (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4594336		19860610
APPLICATION INFO.:	US 1984-601745		19840419 (6)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1982-425543, filed on 28 Sep 1982, now abandoned which is a continuation of Ser. No. US 1980-210810, filed on 26 Nov 1980		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Phillips, Delbert R.		
LEGAL REPRESENTATIVE:	Frost & Jacobs		
NUMBER OF CLAIMS:	7		

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EXEMPLARY CLAIM: 1
LINE COUNT: 633

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a new thiolated polypeptide compound derived from a fragment of tetanus toxin.

This thiolated polypeptide compound is constituted by the B-II.sub.b fragment of tetanus toxin to which at least one --SH group is directly or indirectly bound.

Application: neuropharmacological retrograde axonal transport agent for transporting a medicine to the central nervous system.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 15 OF 16 USPATFULL on STN

ACCESSION NUMBER: 84:60892 USPATFULL
TITLE: Thiolated polypeptide compound derived from a tetanus toxin fragment, the process for its obtention and its applications
INVENTOR(S): Bizzini, Bernard, Paris, France
PATENT ASSIGNEE(S): Institut Pasteur, Paris, France (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4479940		19841030
APPLICATION INFO.:	US 1982-341335		19820121 (6)

	NUMBER	DATE
PRIORITY INFORMATION:	FR 1981-1176	19810122
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Phillips, Delbert R.	
ASSISTANT EXAMINER:	Moezie, F. T.	
LEGAL REPRESENTATIVE:	Frost & Jacobs	
NUMBER OF CLAIMS:	6	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	697	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A new thiolated polypeptide compound derived from a fragment of tetanus toxin, the process for its obtention and its applications.

This compound consists of the II.sub.c fragment of tetanus toxin, having at least one --SH group either directly or indirectly bound thereto. It is usable as a specific neuropharmacological transport agent for transporting a medicine to the central nervous system, as a specific labelling agent for neuronal cells or for diagnosis purposes. It can be coupled with a medicine or a labelling agent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 16 OF 16 USPATFULL on STN
ACCESSION NUMBER: 83:53365 USPATFULL

Searcher : Shears 571-272-2528

TITLE: Immune modulator peptides
 INVENTOR(S): Weigle, William O., Del Mar, CA, United States
 Morgan, Edward L., San Diego, CA, United States
 PATENT ASSIGNEE(S): Scripps Clinic and Research Foundation, La Jolla,
 CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4415493		19831115
APPLICATION INFO.:	US 1982-377223		19820511 (6)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Phillips, Delbert R.		
LEGAL REPRESENTATIVE:	Martens, Jr., William C., Whale, Arthur R.		
NUMBER OF CLAIMS:	17		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1083		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A class of 23 or 24 amino acid peptides available by chemical synthesis or by enzymatic and chemical cleavage of IgG is described. The compounds are useful in modulating the immune response.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

(FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 10:27:00 ON 03 AUG 2004)

L22 217 S L17
 L23 1 S L22 AND ANTIBOD?

L23 ANSWER 1 OF 1 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 80193168 EMBASE
 DOCUMENT NUMBER: 1980193168
 TITLE: Conjugation of triaziquinone to immunoglobulin G by a thiolation procedure catalyzed by 2-pyridinealdehyde methiodide.
 AUTHOR: Warzynski M.J.S.; Cochran K.W.; Ackermann W.W.
 CORPORATE SOURCE: Dept. Epidemiol., Sch. Publ. Hlth, Univ. Michigan, Ann Arbor, Mich. 48109, United States
 SOURCE: Journal of Immunological Methods, (1980) 35/1-2 (157-168).
 CODEN: JIMMBG
 COUNTRY: Netherlands
 DOCUMENT TYPE: Journal
 FILE SEGMENT: 037 Drug Literature Index
 026 Immunology, Serology and Transplantation
 LANGUAGE: English
 AB Thiolation of immunoglobulin G (IgG) with DL-N-acetylhomocysteinethiolactone, catalyzed by 2-pyridinealdehyde methiodide, incorporated new sulfur groups into IgG. Triaziquinone was subsequently conjugated to the sulfur groups. Triaziquinone-IgG complex retained the alkylating activity of the drug and the immunological activity of the antibody. The conjugation procedure was inhibited by the thiol-blocking agent methyl methanethiosulfonate.

(FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO, PHIC, PHIN, TOXCENTER, PASCAL, FEDRIP, DISSABS' ENTERED AT 10:27:55
ON 03 AUG 2004)

L24 737 SEA ABB=ON PLU=ON "KENDE A"?/AU
 L25 1023 SEA ABB=ON PLU=ON "IGLEWSKI B"?/AU
 L26 68066 SEA ABB=ON PLU=ON "SMITH R"?/AU
 L27 1218 SEA ABB=ON PLU=ON "PHIPPS R"?/AU
 L28 7595 SEA ABB=ON PLU=ON "PEARSON J"?/AU
 L29 5 SEA ABB=ON PLU=ON L24 AND L25 AND L26 AND L27 AND L28
 L30 18 SEA ABB=ON PLU=ON L24 AND (L25 OR L26 OR L27 OR L28)
 L31 91 SEA ABB=ON PLU=ON L25 AND (L26 OR L27 OR L28)
 L32 35 SEA ABB=ON PLU=ON L26 AND (L27 OR L28)
 L33 5 SEA ABB=ON PLU=ON L27 AND L28
 L34 2915 SEA ABB=ON PLU=ON (L31 OR L32 OR L24 OR L25 OR L26 OR
 L27 OR L28) AND ANTIBOD?
 L35 6 SEA ABB=ON PLU=ON L34 AND (AUTOINDUC? OR AUTO INDUC?)

L36 19 SEA ABB=ON PLU=ON L29 OR L30 OR L33 OR L35
 L37 9 DUP REM L36 (10 DUPLICATES REMOVED)

- Author(s)

L37 ANSWER 1 OF 9 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on
STN

ACCESSION NUMBER: 2004:257292 BIOSIS

DOCUMENT NUMBER: PREV200400257292

TITLE: **Antibodies** raised against immunogenic conjugates of gram-negative bacterial autoinducer molecules.

AUTHOR(S): Kende, Andrew S. [Inventor, Reprint Author]; Iglewski, Barbara H. [Inventor]; Smith, Roger [Inventor]; Phipps, Richard P. [Inventor]; Pearson, James P. [Inventor]

CORPORATE SOURCE: Pittsford, NY, USA

ASSIGNEE: University of Rochester

PATENT INFORMATION: US 6713059 March 30, 2004

SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Mar 30 2004) Vol. 1280, No. 5. <http://www.uspto.gov/web/menu/patdata.html>. e-file.

ISSN: 0098-1133 (ISSN print).

DOCUMENT TYPE: Patent

LANGUAGE: English

ENTRY DATE: Entered STN: 12 May 2004
Last Updated on STN: 12 May 2004

AB The present invention relates to an immunogenic conjugate comprising a carrier molecule coupled to an **autoinducer** of a Gram negative bacteria. The immunogenic conjugate, when combined with a pharmaceutically acceptable carrier, forms a suitable vaccine for mammals to prevent infection by the Gram negative bacteria. The immunogenic conjugate is also used to raise and subsequently isolate **antibodies** or binding portions thereof which are capable of recognizing and binding to the **autoinducer**. The **antibodies** or binding portions thereof are utilized in a method of treating infections, a method of inhibiting **autoinducer** activity, and in diagnostic assays which detect the presence of **autoinducers** or **autoinducer**

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antagonists in fluid or tissue samples.

L37 ANSWER 2 OF 9 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2004-031193 [03] WPIDS
CROSS REFERENCE: 2002-556091 [59]
DOC. NO. CPI: C2004-010294
TITLE: New immunogenic conjugate comprises a carrier molecule covalently conjugated or otherwise bound to an **auto-inducer** of a Gram negative bacteria, useful for treating bacterial infections.
DERWENT CLASS: B04 D16
INVENTOR(S): IGLEWSKI, B H; KENDE, A S;
PEARSON, J P; PHIPPS, R P;
SMITH, R
PATENT ASSIGNEE(S): (IGLE-I) IGLEWSKI B H; (KEND-I) KENDE A S; (PEAR-I)
PEARSON J P; (PHIP-I) PHIPPS R P; (SMIT-I) SMITH R;
(UYRP) UNIV ROCHESTER
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003095985	A1	20030522	(200403)*		17
US 6713059	B2	20040330	(200423)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003095985	A1 Provisional	US 1998-82025P	19980416
	Div ex	US 1999-293687	19990416
		US 2002-121207	20020411
US 6713059	B2 Provisional	US 1998-82025P	19980416
	Div ex	US 1999-293687	19990416
		US 2002-121207	20020411

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 2003095985	A1 Div ex	US 6395282
US 6713059	B2 Div ex	US 6395282

PRIORITY APPLN. INFO: US 1998-82025P 19980416; US
1999-293687 19990416; US
2002-121207 20020411

AN 2004-031193 [03] WPIDS

CR 2002-556091 [59]

AB US2003095985 A UPAB: 20040405

NOVELTY - A new immunogenic conjugate comprises a carrier molecule covalently conjugated or otherwise bound to an **auto-inducer** of a Gram negative bacteria of compound (I).

DETAILED DESCRIPTION - The new immunogenic conjugate comprises a carrier molecule covalently conjugated or otherwise bound to an **auto-inducer** of a Gram negative bacteria of a

compound of formula (I).

X = O, S, N-(1-6C) alkyl, NR₂, N-phenyl;
 Y = 1-6C optionally branched alkyl, 1-6C optionally branched alkenyl, 1-6C optionally branched alkynyl;
 Z = C=O, C=S, CHO_H, C=N-NR₁, C=N-OH, 1-18C optionally branched alkyl, 1-18C optionally branched alkenyl, 1-18C optionally branched alkynyl;

L = 1-18C optionally branched alkyl, 1-18C optionally branched alkenyl, 1-18C optionally branched alkynyl or -CO₂H, -CO₂R₁, -CHO, -C=N, -N=C=O, -N=C=S, OH, OR₁, -CH=CH-CH₂Br, -CH=CH-CH₂Cl, -SAC or SH;

R₁ = 1-6C optionally branched alkyl;

m = 0-1;

z = 0-1;

R₂ = H, 1-6C optionally branched alkyl, 1-6C optionally branched alkenyl, 1-6C optionally branched alkynyl, or CO₂H;

Q = CH or N; and

n = 0-3.

with the proviso that when n is 0; X = N-(C1-6 alkyl) or N-phenyl.

INDEPENDENT CLAIMS are also included for the following:

(1) an isolated **antibody** or its fragment which specifically binds an **autoinducer** of or produced by a Gram negative bacteria;

(2) detecting a Gram negative bacteria **autoinducer** in a sample;

(3) a method of treating or preventing an infectious diseases in a subject;

(4) a diagnosing kit comprising an **antibody** which specifically binds an **autoinducer** of a Gram negative bacteria; and

(5) a pharmaceutical composition comprising an **antibody** or its fragment which specifically binds an **autoinducer** by a Gram negative bacteria and a carrier.

ACTIVITY - Antibacterial.

No biological data given.

MECHANISM OF ACTION - None given.

USE - The immunogenic conjugate is useful for treating bacterial infections (claimed).

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L37 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
 ACCESSION NUMBER: 2002:171860 CAPLUS
 DOCUMENT NUMBER: 136:215514
 TITLE: Novel autoinducer molecules and uses therefor
 INVENTOR(S): Pesci, Everett C.; Milbank, Jared B. J.;
 Pearson, James P.; Kende, Andrew
 S.; Greenberg, Everett Peter;
 Iglesias, Barbara H.
 PATENT ASSIGNEE(S): The University of Iowa Research Foundation, USA;
 University of Rochester; East Carolina
 University
 SOURCE: PCT Int. Appl., 42 pp.
 CODEN: PIIXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002018342	A2	20020307	WO 2001-US27165	200108 31
WO 2002018342	A3	20020510		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001086976	A5	20020313	AU 2001-86976	200108 31
US 2002177715	A1	20021128	US 2001-945325	200108 31
PRIORITY APPLN. INFO.:			US 2000-229715P	P 200008 31
			WO 2001-US27165	W 200108 31

OTHER SOURCE(S): CASREACT 136:215514; MARPAT 136:215514
 AB Novel bacterial quinolone signal mols. and, more particularly, Pseudomonas quinolone signal ("PQS") mols., e.g., 2-heptyl-3-hydroxy-4-quinolone, and analogs and derivs. are described,. Therapeutic compns. containing the mols., and therapeutic methods, methods of for regulating gene expression, methods for identifying modulators of the autoinducer mols., and methods of modulating quorum sensing signaling in bacteria using the compds. of the invention are also described. Thus, 2-Heptyl-3-hydroxy-4-quinolone was isolated from culture broth of Pseudomonas aeruginosa PAO-JP2/pECP39.

L37 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
 ACCESSION NUMBER: 2002:403802 CAPLUS
 DOCUMENT NUMBER: 136:400592
 TITLE: Immunogenic conjugates comprising autoinducer and lysine-containing protein as vaccine and for raising antibody to treat and diagnose Gram-neg. bacterial infection
 INVENTOR(S): Kende, Andrew S.; Iglesias, Barbara H.; Smith, Roger;

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Phipps, Richard P.; Pearson, James P.

PATENT ASSIGNEE(S): University of Rochester, USA
SOURCE: U.S., 21 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6395282	B1	20020528	US 1999-293687	199904 16
US 2003095985	A1	20030522	US 2002-121207	200204 11
US 6713059	B2	20040330	US 1998-82025P	P 199804 16
PRIORITY APPLN. INFO.:			US 1999-293687	A3 199904 16

OTHER SOURCE(S): MARPAT 136:400592

AB The present invention relates to an immunogenic conjugate comprising a carrier mol. coupled to an **autoinducer** of a Gram neg. bacteria. The **autoinducer** is N-(3-oxododecanoyl)-L-homoserine lactone, N-(butanoyl)-L-homoserine lactone, N-hexanoyl-homoserine lactone, N-(3-oxohexanoyl)-homoserine lactone, N-β-(hydroxybutyryl)-homoserine lactone, N-(3-oxooctanoyl)-L-homoserine lactone, or N-(3R-hydroxy-cis-tetradecanoyl)-L-homoserine lactone. The carrier mol. is bovine serum albumin, chicken egg ovalbumin, limpet hemocyanin, tetanus toxoid, diphtheria toxoid and thyroglobulin. The immunogenic conjugate, when combined with a pharmaceutically acceptable carrier, forms a suitable vaccine for mammals to prevent infection by the Gram neg. bacteria. The immunogenic conjugate is also used to raise and subsequently isolate **antibodies** or binding portions thereof which are capable of recognizing and binding to the **autoinducer**. The **antibodies** or binding portions thereof are utilized in a method of treating infections, a method of inhibiting **autoinducer** activity, and in diagnostic assays which detect the presence of **autoinducers** or **autoinducer** antagonists in fluid or tissue samples.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 1999:684507 CAPLUS
DOCUMENT NUMBER: 132:1973

Searcher : Shears 571-272-2528

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TITLE: Quinolone signaling in the cell-to-cell communication system of *Pseudomonas aeruginosa*
AUTHOR(S): Pesci, Everett C.; Milbank, Jared B. J.; Pearson, James P.; McKnight, Susan; Kende, Andrew S.; Greenberg, E. Peter; Iglewski, Barbara H.
CORPORATE SOURCE: Department of Microbiology and Immunology, East Carolina University School of Medicine, Greenville, NC, 27858, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1999), 96(20), 11229-11234
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Numerous species of bacteria use an elegant regulatory mechanism known as quorum sensing to control the expression of specific genes in a cell-d. dependent manner. In Gram-neg. bacteria, quorum sensing systems function through a cell-to-cell signal mol. (autoinducer) that consists of a homoserine lactone with a fatty acid side chain. Such is the case in the opportunistic human pathogen *Pseudomonas aeruginosa*, which contains two quorum sensing systems (las and rhl) that operate via the autoinducers, N-(3-oxododecanoyl)-L-homoserine lactone and N-butyryl-L-homoserine lactone. The study of these signal mols. has shown that they bind to and activate transcriptional activator proteins that specifically induce numerous *P. aeruginosa* virulence genes. We report here that *P. aeruginosa* produces another signal mol., 2-heptyl-3-hydroxy-4-quinolone, which has been designated as the *Pseudomonas* quinolone signal. It was found that this unique cell-to-cell signal controlled the expression of lasB, which encodes for the major virulence factor, LasB elastase. We also show that the synthesis and bioactivity of *Pseudomonas* quinolone signal were mediated by the *P. aeruginosa* las and rhl quorum sensing systems, resp. The demonstration that 2-heptyl-3-hydroxy-4-quinolone can function as an intercellular signal sheds light on the role of secondary metabolites and shows that *P. aeruginosa* cell-to-cell signaling is not restricted to acyl-homoserine lactones.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 1996:617724 CAPLUS
DOCUMENT NUMBER: 125:267382
TITLE: Functional analysis of the *Pseudomonas aeruginosa* autoinducer PAI
AUTHOR(S): Passador, Luciano; Tucker, Kenneth D.; Guertin, Kevin R.; Journet, Michel P.; Kende, Andrew S.; Iglewski, Barbara H.
CORPORATE SOURCE: Dep. Microbiol. Immunol. Chem., Univ. Rochester, Rochester, NY, 14642, USA
SOURCE: Journal of Bacteriology (1996), 178(20), 5995-6000
CODEN: JOBAAY; ISSN: 0021-9193

Searcher : Shears 571-272-2528

PUBLISHER: American Society for Microbiology
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB A series of structural analogs of the *Pseudomonas aeruginosa* autoinducer [PAI, N-3-oxo-dodecanoyl homoserine lactone] were obtained and tested for their ability to act as autoinducers in stimulating the expression of the gene for elastase (lasB) by measuring β -galactosidase production from a lasB-lacZ gene fusion in the presence of the transcriptional activator LasR. The data suggest that the length of the acyl side chain of the autoinducer mol. is the most critical factor for activity. Replacement of the ring O by S in the homoserine lactone moiety can be tolerated. Tritium-labeled PAI ([3H]PAI) was synthesized and used to demonstrate the association of [3H]PAI with cells overexpressing LasR. The PAI analogs were also tested for their ability to compete with [3H]PAI for binding of LasR. Results from the competition assays suggest that once again the length of the acyl side chain appears to be crucial for antagonist activity. The presence of the 3-oxo moiety also plays a significant role in binding since analogs which lacked this moiety were much less effective in blocking binding of [3H]PAI. All analogs demonstrating competition with PAI in binding to LasR also exhibited the ability to activate lasB expression, suggesting that they are functional analogs of PAI.

L37 ANSWER 7 OF 9 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
 ACCESSION NUMBER: 1994:330691 BIOSIS
 DOCUMENT NUMBER: PREV199497343691
 TITLE: Use of structural analogs to determine critical features of *Pseudomonas aeruginosa* autoinducer.
 AUTHOR(S): Passador, L. [Reprint author]; Pearson, J. P.; Gray, K. M.; Guertin, K.; Kende, A. S.; Greenberg, E. P.; Iglesias, B. H.
 CORPORATE SOURCE: U. Rochester, Rochester, NY, USA
 SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (1994) Vol. 94, No. 0, pp. 111.
 Meeting Info.: 94th General Meeting of the American Society for Microbiology. Las Vegas, Nevada, USA. May 23-27, 1994.
 ISSN: 1060-2011.
 DOCUMENT TYPE: Conference; (Meeting)
 LANGUAGE: English
 ENTRY DATE: Entered STN: 2 Aug 1994
 Last Updated on STN: 1 Sep 1994

L37 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1971:52740 CAPLUS
 DOCUMENT NUMBER: 74:52740
 TITLE: Photochemical methylenecyclopropane rearrangement
 AUTHOR(S): Kende, Andrew S.; Goldschmidt, Zeev; Smith, Richard Frederick
 CORPORATE SOURCE: Dep. Chem., Univ. Rochester, Rochester, NY, USA
 SOURCE: Journal of the American Chemical Society (1970),

92(26), 7606-7
 CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB The photochem. rearrangement of 1-phenylmethylenecyclopropane (I) to 1-phenyl-2-methylenecyclopropane (II) was reversible. Irradiation of I in a quartz tube for 30 min caused 54% loss of I, and the appearance of 18% II, 3% PhCH:CH₂, and 2% PhC.tplbond.CH. Under the same conditions 30% II was converted in 40 min and gave 6% I and 11% PhCH:CH₂. I remained unchanged on irradiation in a Pyrex tube with xanthone as the triplet sensitizer. Diphenyl-methylenecyclopropane (III) similarly gave 1,1-diphenyl-2-methylenecyclopropane (IV) and Ph₂C:CH₂ but IV gave only Ph₂C:CH₂. PhC.tplbond.CH was formed from I, PhCH:CH₂ from II, and Ph₂C:CH₂ from IV by cheletropic photofragmentation, but the formation of PhCH:CH₂ from I and Ph₂C:CH₂ from III is unexplained.

L37 ANSWER 9 OF 9 FEDRIP COPYRIGHT 2004 NTIS on STN

ACCESSION NUMBER: 2004:144433 FEDRIP
 NUMBER OF REPORT: CRISP 5R37AI33713-11
 RESEARCH TITLE: REGULATION OF PSEUDOMONAS AERUGINOSA PROTEASES
 STAFF: Principal Investigator: **IGLEWSKI, BARBARA**
 H.; BIGL@MAIL.ROCHESTER.EDU, UNIVERSITY OF
 ROCHESTER, 601 ELMWOOD AVE BOX 672, ROCHESTER,
 N Y 14642
 PERFORMING ORGN: UNIVERSITY OF ROCHESTER, ROCHESTER, NEW YORK
 SUPPORTING ORGN: Supported By: NATIONAL INSTITUTE OF ALLERGY AND
 INFECTIOUS DISEASES
 PROJECT START DATE: 2001 (/01/93)
 FISCAL YEAR: 2003
 ESTD COMPLETION DATE: 2012 (/31/05)
 FUNDING: Noncompeting Continuation (Type 5)
 FILE SEGMENT: National Institutes of Health
 SUM DESCRIPTION (adapted from the investigator's abstract): This proposal is a competing renewal of AI 33713. The long-term goal of this research is to determine the role of quorum sensing in the pathogenesis of *Pseudomonas aeruginosa*. We have shown that *P. aeruginosa* makes three signal molecules (**autoinducers**); PAI-1, PAI-2, and PQS. PAI-1 and PAI-2 activate the R-proteins LasR and RhlR respectively, to stimulate expression of numerous virulence factor and secondary metabolite genes. These two R proteins belong to the growing family of **autoinducer** responsive transcriptional regulators found in many Gram-negative bacteria. Homology searches of the genome show that *P. aeruginosa* contains two other R protein genes. Despite the advances made in understanding these important regulatory systems many questions remain. The current proposal seeks answers to some of these questions and has the following specific aims: 1. Continue studies on PAI-1 and PAI-2 by producing and characterizing polyclonal and monoclonal **antibodies** to these **autoinducers**. 2. Continue studies on the structure and function of LasR and RhlR. 3. Determine if the other two R proteins in *P. aeruginosa* PAO are involved in quorum sensing and the regulation of known virulence factors including proteases. 4. Continue studies on the role of LasR-PAI-1 and RhlR-PAI-2 in virulence of *P. aeruginosa*, using a model of acute pneumonia in adult mice and collaboratively in a mouse thermal

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injury model. We will examine the effect on bacterial virulence of mutations in QS genes and determine if **antibodies** to PAI-1 or PAI-2 alter the outcome of these *P. aeruginosa* infections. The results of these studies will further our understanding of virulence regulation in *P. aeruginosa* and provide new insights into quorum sensing systems in general. They will determine the feasibility of novel approaches to therapy for Gram-negative infections and provide useful reagents for future studies.

FILE 'HOME' ENTERED AT 10:31:20 ON 03 AUG 2004

Searcher : Shears 571-272-2528